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ABSTRACT

Prefaced by a review by the Chairman and a report by the Director-General of Israel's Planning and Grants Committee (PGC), this document contains nine chapters describing: (1) the Planning and Grants Committee; (2) the country's higher education system in 1986/87; (3) planning, information, and new units; (4) the higher education budget; (5) allocations to encourage research and excellence; (6) allocations to encourage inter-university cooperation; (7) aid to students; (8) other allocations; and (9) the PGC and the government and the Knesset (parliament). Ten appendices provide information on: subjects discussed at meetings of the PGC in 1986/87; subjects discussed at meetings of the Council for Higher Education in 1986/87; fields of study in the institutions of higher education; students in universities 1969/70-1986/87; students in non-university institutions of higher education 1983/84-1986/87; students in universities by level and field of study; recipients of degrees from universities 1969/70-1985/86; recipients of degrees from non-university institutions of higher education 1982/83-1985/86; active university staffs according to budgetary source; and staff in non-university institutions of higher education 1985/86. (SM)

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THE COUNCIL
FOR HIGHER
EDUCATION
ISRAEL

THE PLANNING AND GRANTS COMMITTEE

Annual Report No. 14
Academic Year 1986/87

Presented to the Council for Higher Education
Jerusalem, April 1988

Editor: Lea Tzivoni

English version translated and edited by Yael Atiyah

The Planning and Grants Committee of the Council for Higher Education
12, HaNassi Street, POB 4037, Jerusalem 91040, Israel

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THE CHAIRMAN'S REVIEW

I have, unfortunately, to commence this review by stating that in the 1986/87 academic year the higher education system saw no changes for the better. The place of higher education in the national scale of priorities did not change and the system made no significant efforts to plan or make provisions for the coming decade.

In 1985/86 the Planning and Grants Committee (PGC) presented to the Government a multi-year program for higher education based on increased resources and multi-year planning and complying with the dictum of "out with the old, in with the new". In 1986/87 the Government discussed the state of higher education and university research and determined that tuition fees in 1987/88 would be lower than in 1986/87, while allocating funds to higher education to cover this loss of income. The Government has not yet, however, adopted the PGC's program in its entirety.

It may be presumed that the reader of this report is concerned about the plight of higher education and has read previous annual reports of the PGC; therefore I will not repeat here things that have been written in these reports many times over the past decade. I have chosen to discuss the central and vital question: **Is the higher education system about to lose its independence?**

The financial dependence of the institutions of higher education on allocations from the Government is manifested in the rate of government participation in their budgets. Today 60% of the ordinary budget of the institutions of higher education derives from the Government and if we include income from tuition fees, the rate is more than 75%. This is the percentage that was prevalent in the past, before the "cutbacks of 1983/84". In that year the Government cut its allocation to higher education by 20%, creating profound shocks in the higher education system. Spiralling deficits followed, some as the direct result of the cutbacks, and some brought about by the failure of the administrations of certain institutions to keep their expenditures in line with their reduced income. Deficits accumulated at this time continue to cast a pall over the system and consume a significant share of current budgets. The erosive processes at work on equipment, staff, conditions for research, and libraries persist.

The Council for Higher Education Law states that each institution is free to conduct its academic and administrative affairs as it sees fit, within the confines of its approved budget. There is no better definition than this for the term "academic independence". The law and its implementation in practice ensure that the Government will not endanger the academic freedom and academic independence of the institutions

of higher education. At the same time, a continuing built-in deficit in the budget of a university will, in the end, affect its academic independence.

The PGC's policy of allocations is based, among other factors, on revaluation of the "output" of graduates and the scope of research activities in the universities. As a result, a deficit does not lead to a larger allocation. When a deficit is indicated and the administration of the university in question is not able to overcome the deficit, the PGC draws the attention of the university's Board of Governors to this fact, since the Board of Governors is entrusted with the orderly budgetary management of the university and approves the university's budget each year. When intervention by the Board of Governors does not bring about budgetary balance, the next stage is divesting the university of its assets because the university may no longer take out bank loans. This is a dangerous stage, in which the Board of Governors is liable to act not only as a public body concerned about the welfare and financial functioning of the university, but also as a representative of the donors to the university, who see their donations disappearing before their eyes. Pressure may be put upon the university to make immediate changes in its academic structure; such pressure is incompatible with the principles of academic freedom and academic independence. This is the reason that academic independence may only exist within the confines of a balanced budget.

Of course, if the Government increases its allocations the university may achieve budgetary balance without any effort. However, we must ask ourselves if such an increase, not accompanied by long-range planning on the part of the university, will be utilized efficiently.

The PGC's program for furthering the higher education system was presented to the Government at the end of the 1985/86 academic year. The program calls for increasing the basic higher education budget by 25% in four years. The increase will be intended primarily for development and fostering of subjects such as scientific equipment, research, libraries, and recruitment of academic staff reserves prior to the expected retirement of large numbers of academic staff in the 1990's. The increase in allocations will not finance any new institutions or expansion in existing institutions. The reasons for this are as follows:

a. Forecasts of the number of suitable candidates for admission to the universites show that the existing system is capable of absorbing them if candidates can be diverted from the center of the country to peripheral areas (that is, to Ben-Gurion University of the Negev, the University of Haifa and the Hebrew University of Jerusalem, all of which can admit larger numbers of students).
b. Alternative solutions for many potential candidates are available, such as expanding the activities of the Open

University and other universities in the regional colleges, and in existing post-secondary institutions. (This subject is now on the agenda of the Council for Higher Education.)

There is therefore no justification for significantly enlarging the higher education system. The only proper way to develop academic subjects that are vital for our scientific future is to divert additional resources to their development while curtailing other subjects that are not vital. That is the only way we can wisely advance the scientific activity of the system without expanding it.

I allow myself to state that the impressive achievements of Israeli science in the past stemmed from the fact that most of its support came within the framework of allocations to higher education and it was thus prevented from having to graze and wander in foreign pastures.

We must not release the Government from its obligation to support the building of the scientific infrastructure of the universities, establising it and raising its level.

At the same time, we must not release the universities from their responsiblity for rejuvenating themselves and developing new and vital areas while slowly cutting back in less vital areas. This should be accomplished within the framework of a multi-year plan ensuring the increase of government allocations to higher education, their stability and proper utilization.

If these conditions are not met, I am afraid that the higher education system may lose its independence in coming years and its level and quality may suffer irreparable damage.

Jacob Ziv

February 1988

P.S. I am pleased to report that when this report was being completed the Ministry of Finance decided to adopt the principles of the PGC's plan for the advancement of the higher education system and to make additional funds available to higher education in the years 1987/88 - 1989/90.

THE REPORT OF THE DIRECTOR-GENERAL

In 1986/87 the PGC demonstrated its consistency and credibility and the correctness of its policy. It demonstrated these qualities in its actions - first and foremost by honoring its obligations toward the higher education system. As a result, in 1986/87 the institutions of higher education were able to operate within non-deficit budgetary frameworks that were, in real terms, 14% above those of 1985/86. Furthermore, provisions were made for extra expenses incurred by salary increases awarded to academic staffs in their 1986 agreement. 75% of university budgets, on the average, and an even larger share of the budgets of non-university institutions, were funded by PGC allocations and income from tuition fees.

The consistency and credibility of the PGC reinforced the PGC's repeated refusal to yield to the requests of the institutions to cover past deficits. The PGC is striving for improvements in the infrastructure of the higher education system as outlined in the medium-term financial program that it presented to the Government.

The multi-year agreement concluded between the PGC and the Hebrew University of Jerusalem and the willingness of the Ministry of Finance to provide budgetary resources for several vital subjects are proof that the PGC's position is understood by all concerned.

The PGC was active in many areas during the year. It undertook, on behalf of the institutions of higher education and the Ministry of Finance, an examination of the relative changes in academic staff salaries. It also had, regrettably, to inform the institutions, and foremost among them the largest of them, that academic development must be based on an internal re-allocation of resources within the institution, according to the institution's own judgment and academic priorities.

The most difficult subject facing the PGC during the year was that of tuition fees in the institutions of higher education. Previous agreements governing tuition fees were due to expire and a new policy had to be determined. The PGC decided in favor of a modest increase in tuition fees to be combined with budgetary supplements in order that the medium-term financial program mentioned above can be implemented. The PGC based its decision on the availability of financial resources from the State budget, on the one hand, and on the dependence of the institutions on the Government, on the other hand. The political controversy surrounding the PGC's stand

and the Government's decision on the matter threatened to disrupt the opening of the 1987/88 academic year; this was prevented in no small measure thanks to the credibility of the PGC.

In January 1987 the Knesset (Parliament) Public Audit Committee discussed the State Comptroller's report on the PGC and the institutions of higher education. The PGC was gratified by the positive conclusions reached by the Committee.

The PGC continually works to improve its own performance. In some areas, though, its performance is, to some degree, dependent on others. For example, the PGC has introduced electronic data processing in order to facilitate budgetary preparations, the retrieval of information, and the work of the Secretariat of the Council for Higher Education. This, however, has served to reveal the incompleteness of the information and statistical data that the institutions of higher education can supply to the PGC. There is much room for improvement in standards and timing if the PGC is to conduct meaningful comparative analyses of trends over time. It seems difficult to obtain relevant data unless the higher education system itself, at all levels, decides that it wants to know more about itself. The PGC is prepared to assist them in this effort with budgetary back-up if necessary, as it did in the past with the establishment of the National Center for Testing and Evaluation, and as it is currently assisting with the establishment of a center for student information.

The PGC has tried to influence the decision-making processes in the institutions of higher education and their administrative functioning. Here it can not claim a great deal of success. In most institutions "positive" decision-making is kept separate from "negative" decision-making. By "positive" decisions we mean those calling for expansion in any area that of necessity entails increases in expenditures; by "negative" decisions we mean those that must either provide sufficient income to cover the increased expenditures caused by "positive" decisions or, if necessary, cancel those decisions. This separation is unwise and the PGC strives for strengthening central control in the institutions. Strong central control would make decisions concerning the scope of academic activity more compatible with the actual financial capabilities of the institution.

The PGC has the more distant future in mind as well. Together with the Council for Higher Education it has been probing the question of undergraduate education in the universities. This investigation continues and future annual reports of the PGC will relate to the progress of the investigation and discussions on this subject.

On the administrative level, the PGC and the Council will soon be obliged to "change their address". The proposal to establish permanent premises on the grounds of the Van Leer Foundation and the Israel Academy of Sciences and Humanities was, unfortunately, not well received. We must now consider other alternatives.

In conclusion, congratulations and thanks: congratulations to members of the Seventh Council for Higher Education, who began their term of office during the year under review; thanks to the members of the PGC, for both their collective and their individual efforts; and thanks to the administrative staff of the PGC and the Council. My particular thanks to former PGC member Mr. Simcha Soroker, for serving diligently as chairman of the committee that is presently examining the pension insurance schemes in the higher education system.

Simcha Landau

February 1988

1
THE PLANNING AND GRANTS COMMITTEE (PGC)

The Committee

Prof. Jacob Ziv - Chairman

Prof. Nehemia Levtzion

Mr. Gurion Meltzer

Prof. Kenneth Preiss

Prof. Anita Shapira

Mr. Haim Stoessel

The Administration

Mr. Simcha Landau	- Director-General
Miss Ruth Silberberg	- Deputy Director-General and i/c Development and Planning
Mrs. Techia Karcz	- Secretary, Council for Higher Education and PGC
Mr. Gury Zilkha	- i/c Budgets

1.1
The Terms of Reference of the Planning and Grants Committee

The terms of reference of the Planning and Grants Committee, as defined in Government Decision No. 666 of June 5, 1977, are as follows:

> The Government authorizes the establishment, as a subcommittee of the Council for Higher Education, of the Planning and Grants Committee, which the Minister of Education and Culture has appointed with the approval of the Council for Higher Education, in order to fulfill the following principal functions:
>
> 1. To be an independent body coming between the Government and the national institutions, on the one hand, and the institutions of higher education on the other, in all matters relating to allocations for higher education. The Government and the national institutions shall refrain from receiving requests or recommendations from the institutions of higher education themselves or from any other source. They shall also refrain from allocating funds to an institution of higher education other than on the recommendation of the Planning and Grants Committee.
>
> 2. To submit the ordinary and development budget proposals for higher education, taking into account the needs of society and the State, while safe-guarding academic freedom and assuring the advancement of research and learning.
>
> 3. To have exclusive authority to allocate to the institutions of higher education the global approved ordinary and development budgets.
>
> 4. To submit to the Government and to the Council for Higher Education plans for the development of higher education, including their financing.
>
> 5. To encourage efficiency in the institutions of higher education and coordination between them with a view to preventing superfluous duplication and bringing about economy.
>
> 6. To ensure that budgets are balanced and that there are no deviations from them.
>
> 7. To express its opinion to the Council for Higher Education before the Council reaches a decision on the opening of a new institution or a new

unit having financial implications in an existing institution. The considered opinion of the PGC will include answers to the following questions:

a. Is there a need for the new institution or for the new unit?

b. What are the financial implications of opening the new institution or the new unit? The PGC will determine whether the opening of the new unit has or has not financial implications.

1.2 The Status of the PGC and its Composition

The Planning and Grants Committee (PGC) of the Council for Higher Education was established in 1974, based on the model of the British University Grants Committee (UGC). The Government determined that the PGC would be "an independent body, coming between the Government and the national institutions, on the one hand, and the institutions of higher education on the other". The PGC's decisions in those matters delegated to it by the Government are completely independent.

The PGC is composed of six members: four professors from the university system, who may not hold any positions of administrative responsibility in their universities during their tenure as PGC members; and two public figures from the economic, business or industrial sectors of the economy. Two professors represent the humanities, social sciences, law or education and two the natural sciences, engineering, medicine or agriculture. This composition is intended to ensure an overall and balanced view of subjects brought before it.

The PGC's responsibility as trustee on behalf of the Government for higher education places it in opposition to the heads of the universities while, at the same time, obligating it to represent the interests of higher education in Government and Knesset (Parliament) discussions and decisions.

1.3 The Work of the PGC

1.3.1 Plenary Sessions

Between October 1986 and September 1987 the PGC held 28 sessions. An additional session was held at Tel-Aviv University in January 1987.

The PGC invites experts who are not members of the Committee to participate in discussions on special topics, such as university libraries, the Basic Research Foundation, the inter-university center in Eilat, scientific collections in the natural sciences, and the Israeli Academic Center in Cairo.

A list of the subjects discussed at PGC meetings appears in Appendix 1.
A list of the members of the PGC appears on page 13.

1.3.2 Sub-committees of the PGC

The following sub-committees were active in 1986/87:

* The Sub-committee for Scientific Equipment;
* The Selection Committee for the Yigal Allon Fellowships;
* The Committee for Computers;
* The Inter-University Computing Center Directorate;
* The Steering Committee for the Inter-University Library Network;
* The Inter-Institution Academic Committee for the Institute for Desert Research;
* The Executive Committee of the Inter-University Center in Eilat;
* The Group Appointed to Oversee Jerusalem College of Technology;
* The Visiting Committee Appointed to Review the Activities of the University Schools of Education.

Members of the PGC serve as chairpersons or members of most of the PGC sub-committees. Other members are selected according to their qualifications or area of specialization from among the senior staffs of the universities and the private or public sectors of the economy. Committee members do not receive any remuneration for their services. PGC staff members serve as committee coordinators. PGC members also serve as members of governing committees of organizations funded by the PGC, such as the Basic Research Foundation and the various joint research funds.

1.3.3 The Administrative Staff

The PGC's administrative staff is divided into three sub-units:

* **The secretariat** of the Council for Higher Education and the Planning and Grants Committee;
* **The ordinary budget**, including wages and matching allocations;
* **planning and development**, including statistics and academic planning.

The staff is composed of 20 1/4 established posts.

1.4
The PGC and the Council for Higher Education

The PGC is the executive arm of the Council for Higher Education. The Chairman of the PGC is ex-officio a member of the Council. PGC staff are, by law, employees of the Council.

The PGC advises the Council in such matters as the approval of new units or accreditation of new institutions, taking into consideration planned development of the higher education system, financial implications and the needs of the State.

Since 1980/81 new units are processed according to rules agreed upon with the institutions of higher education and approved by the Council. According to these rules the institutions inform the PGC of their plans for any new unit or change in existing units. The PGC examines the proposals from the point of view of the needs of the State, prevention of unnecessary duplication and financial considerations. If the PGC is of the opinion that the new unit has no financial implications and there is no need to examine it from the aspects of the needs of the State or unnecessary duplication, the PGC takes note of the new unit or change and notifies the institution concerned and the Council. If the proposal has financial implications or must be examined from any of the above aspects, the PGC must present its opinion on the matter to the Council, which appoints an examining committee.

A list of subjects discussed in Council meetings appears in Appendix 2.

The second report of the Council for Higher Education, covering the years of the Sixth Council, 1981-1986, was published in December 1986. 1986/87 was the first year of the term of office of the Seventh Council for Higher Education.

2
THE HIGHER EDUCATION SYSTEM IN 1986/87

2.1
General Data

The higher education system in Israel includes universities, institutions providing instruction at the bachelor's degree level only in technology, the arts and teacher training, and courses for which universities are academically responsible.

The universities are:

The Hebrew University of Jerusalem

The Technion - Israel Institute of Technology

Tel-Aviv University

Bar-Ilan University

The University of Haifa

Ben-Gurion University of the Negev

The Weizmann Institute of Science

*

The Open University in Israel

Four institutions of higher education which are not universities and are authorized to award only the bachelor's degree:

Bezalel - Academy of Arts and Design

The Jerusalem Rubin Academy of Music and Dance

Jerusalem College of Technology

Shenkar - College of Textile Technology and Fashion

*

Ruppin Institute of Agriculture
Accredited and authorized to award the bachelor's degree in the course in Kibbutz Administration

The College of Administration in Tel-Aviv
Has received provisional accreditation for the program in business administration

*

The Center for Technological Education in Holon
Academic auspices of Tel-Aviv University.

*

Six institutions for the training of teachers that have received either a permit or accreditation, either for the entire institution or certain programs of study:

Michlala, Jerusalem College for Women

The David Yellin Teachers College

Beit-Berl Teachers Training College

The Zinman College of Physical Education at the Wingate Institute

Levinsky Teachers College

State Teachers College Seminar Hakibbutzim (permit only)

*

Academic courses in regional colleges for which universities are academically responsible:

The Municipal College of Eilat
Academic responsibility of Ben-Gurion University of the Negev

The S. Sapir Regional College of the Negev
Academic responsibility of Ben-Gurion University of the Negev

The Achva College
Academic responsibility of the Open University in Israel

The Menashe Regional College
Academic responsibility of Tel-Aviv University
(A few courses only)

The Alperin Regional College of the Jordan Valley
Academic responsibility of Bar-Ilan University

The Emek Yezrael Regional College "Ohel Sarah"
Academic responsibility of the University of Haifa

Western Galilee Regional College
Academic responsibility of the Open University in Israel

The Tel-Hai Rodman Regional College
Academic responsibility of the University of Haifa;
Agricultural courses academic responsibility of
the Hebrew University of Jerusalem

Details on the fields of study offered at the institutions of higher education appear in Appendix 3.

* * *

In 1986/87 there were approximately 63,500 students in the universities studying for academic degrees and diplomas, as opposed to 62,400 the previous year. Approximately 3,700 studied in the universities in special programs that do not lead to academic degrees or certificates (excluding external programs and pre-academic preparatory courses, etc.). There were approximately 1,900 students in non-university institutions of higher education. In the Open University there were approximately 13,500 students taking academic courses, equivalent to about 2,300 full-time students in a regular university. Data on students in universities and non-university institutions of higher education appear in Appendices 4 and 5.

In 1986/87 approximately 45,500 (72%) of the students in the universities were studying for the bachelor's degree, 13,700 (21%) for the master's degree, 3,400 (5%) for the Ph.D. and 1,000 (2%) for a certificate (mainly secondary school teaching certificates). Data on degree levels of university students appear in Appendix 6.

In 1985/86 (final data for 1986/87 are not yet available) approximately 12,000 students received academic degrees from universities, 74% of them the bachelor's degree, 18% the master's degree and 3% the Ph.D. or its equivalent. In addition, almost 400 students received bachelor's degrees from non-university institutions of higher education. Data on recipients of degrees appear in Appendices 7 and 8.

Data on staff in universities and non-university institutions of higher education appear in Appendices 9 and 10.

2.2
Major Developments in the Institutions of Higher Education*

2.2.1 The Hebrew University of Jerusalem

* Students
In 1986/87 the number of students increased by about 1,000 over the previous year. Student numbers increased particularly in the Department of General Studies in the Faculty of Humanities, and in the fields of business administration and accounting, chemistry, biology, and pharmacy. 154 students received the doctor's degree - the highest number in one year since 1980.

* Academic Staff
In 1986/87 31 new researchers were appointed to the ranks of lecturer to full professor. 27 academic staff members retired and 18 left the University.
40 junior academic staff positions were eliminated.
The academic staff agreed to an 8% cut in salaries to aid in the University's recovery from financial straits.

* Instruction
A special program for honors students is being prepared.
A master's degree program in biotechnology was opened (pending approval by the Council for Higher Education).

* Research
The following research projects are especially note-worthy: in the natural sciences - neuron networks, physical models for thinking and memory, high temperature super-conducting materials, and the artificial imitation of the photo-synthesis processes as a means of preparing fuels and chemical raw materials; in the humanities - computer-aided study of the Septuagint, discoveries at the Beit-Shean archaeological excavcations, and pre-historic man, following the discovery of a Neanderthal skeleton.

* Physical Development and Equipment
Additional micro-computer classes were established.
New research centers were operated and resources were found to finance them in the fields of agricultural biotech-nology, molecular and cellular neurobiology, molecular dynamics, arid zone research, computers, German history, and others.

* Preparation and Plans for the Future
Academic units were surveyed prior to reorganization, beginning with an examination of the frameworks for study in the biological sciences. It was decided that as of the 1988/89 academic year all first-year studies in agriculture

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* Information in this section was supplied by the institutions themselves.

will be transferred to the Rehovot campus. Furthermore, it was decided to include the undergraduate program of study in agricultural economics in the agricultural studies program.
Changes are to be made in the manner in which assistants and teaching assistants are employed.
A committee has been set up to examine the academic management and general structure of the University.
Approximately 400 administrative staff positions were reduced. The administrative staff agreed to a 6% cut in salaries to aid the University's recovery from financial straits and switched over to a five-day work week.

2.2.2 The Technion - Israel Institute of Technology

* Students
The number of students admitted to the Technion in 1986/87 decreased by about 7% compared with the previous year. In electrical engineering the decrease was 11% and in computer sciences 14%.

* Academic Staff
585 senior academic staff are employed on a full-time basis, an additional 388 senior staff members, equivalent to 84 full-time positions, are employed on other terms, and there are 210 assistants, instructors and graduate instructors.
434 graduate student fellows assist in instruction.
39 new senior academic staff appointments were made.

* Instruction
The Senate of the Technion approved a joint Technion - University of Haifa bachelor's degree program in occupational therapy. A joint Technion - University of Haifa doctoral program in economics was presented to the Senate for approval. An undergraduate program in materials engineering was presented to the Council for Higher Education for approval. The Senate approved a master's degree program in architecture/urban construction.
The Center for Improved Teaching held workshops for new junior adjunct staff members. In addition, personal guidance was offered to teachers by means of closed-circuit television.

* Research
Approximately 300 research grants were awarded from funds deriving from the Technion's allocations or from donations. The scope of externally-funded research contracts was larger in 1986/87 than in 1985/86.

* Development
A development plan for computers was prepared. Priority was given to completion of a system for communication

between various academic units and between the academic units and the computer center.
A development program for biotechnology was prepared.
A program of study in technological management was prepared.

2.2.3 Tel-Aviv University

* Students
The number of undergraduate students admitted increased in the fields of law, management and accountancy and decreased in the field of computer science. The number of students studying for the master's degree increased by 10%. In order to raise admission standards, a university-wide requirement for a minimum score on the psychometric entrance examination as a condition for admission was initiated.

* Academic Staff
In 1986/87 38 new academic staff members were appointed. 24 academic staff members retired, left the university or passed away.

* New Programs in Teaching and Research
The University Senate ratified the following programs: an undergraduate or master's degree program for honors students in disciplinary or inter-disciplinary trends; a non-thesis master's degree program in the Department of Electron Devices, Materials and Electromagnetic Radiation; and a course of study leading to a Teaching Certificate in Special Education in junior high schools, intended for holders of the bachelor's degree in special education or education for the hearing-impaired.
A combined program of study in law and economics was opened.

* Research
Five research chairs were added.
External research grants totalling $8,650,000 were obtained, representing a 17% increase over the previous year. $3,500,000 were allocated for research from internal sources.

* Physical Development and Equipment
Construction of the new building for the School of Dentistry was completed. Construction of the Wiener Library intended to hold the rare collection of works in the histroy of anti-semitism is nearing completion. Work on the two buildings for electrical engineering and the building for social work continues. Construction of a library for the social sciences and management and an art gallery commenced.
The use of computers to aid instruction increased and additional laboratories were opened. A laboratory for the

instruction of robotics was established. An audio-visual laboratory for instruction in the life sciences was operated and the use of audio-visual instruction increased in other fields.
Equipment in the computer center was replaced.
Scientific equipment was purchased: a spectrometer, a system for the creation of transgene animals, and others.

* Preparations and Plans for the Future
Most academic and administrative units in the University were examined. The examining committee recommended that small academic units be combined in order to exploit their full potential in teaching and research.

2.2.4 Bar-Ilan University

* Students
The number of students requesting to study Land of Israel Studies and Yiddish literature increased. In the faculties of social and natural sciences student numbers increased by 20%.
The number of doctoral students increased, most of them in the direct doctoral program.

* Academic Staff
There were no changes in the number of staff positions.
A young staff member joined the Faculty of Law and in the Faculty of Natural Sciences two young researchers and one senior researchers joined the staff.

* Instruction
In the Faculty of Jewish Studies Ladino is now taught in the Department of Literature.
In the Faculty of Law a new non-thesis master's degree program was opened.
In the Faculty of Natural Sciences new courses were opened in biotechnology, analytical chemistry, monomolecular layers and surfaces, computers communication, and parallel and scattered systems. Software laboratories and work-stations were inaugurated.

* Research
In Jewish studies progress was made in the Rashi project and the thematic lexicon of Jewish literature.
Three new areas of research were opened in chemistry: the theory of the dynamics of chemical reactions; the electrochemisty of polaric effrotic solvents and active metals, and monomolecular layers and their application.
The departments of chemistry and life sciences cooperated in the development of practical applications in the area of immune systems. In the life sciences, a natural substance that delays the oxidation of cell components was isolated and may be useful in retarding ageing and injuries to living membranes.

* Physical Development and Equipment
Modern equipment for color photography was purchased for the School of Education.
The soil laboratories of the Department of Geography acquired new equipment, including a flame photometer and an electron microscope. A map library was opened.
In the Faculty of Natural Sciences organic chemistry laboratories for student use were improved. A building for cancer research was inaugurated, as was an additional floor in the mathematics and computer sciences building.

* Preparations and Plans for the Future
The Faculty of Jewish Studies is making every effort to consolidate all its departments into one new building. The School of Education wishes to open a university center for the treatment of reading disorders. A pedagogic center for teaching subjects connected with the Holocaust is being planned.

2.2.5 The University of Haifa

* Students
The fields of study most in demand were: economics, education, psychology, political science, sociology and anthropology, occupational therapy and general studies.

* Academic Staff
A few outstanding researchers joined the staff with the assistance of the Yigal Allon Fellowship Fund, the Wolfe Fund, the Ministry of Immigrant Absorption and research funds.

* Instruction
The program of study at the National Defense College was recognized as part of the master's degree program in political science.
An armed forces course of study was recognized as a department of study.
The University maintains a program of study in the course for police officers at Shefar'am, as part of the Department of General Studies.
The Council for Higher Education approved the following new programs: a doctoral program in the Department of Jewish History; a doctoral program operated jointly with the Technion in economics; and a master's degree program in the Department of Hebrew Language.

* Research
Research grants obtained from external sources increased by 170%, compared with an increase of only 18% the previous year. The Research Authority's policy is to encourage researchers to obtain externally-funded research grants. The Authority has developed the following methods to encourage researchers, based on competition for academic

excellence: twenty "exploratory research projects" were awarded prizes totalling 7,000 NIS (New Israeli Shekels); each year the Research Authority awards a prize; the fund for temporary financing enabling researchers who have obtained external research grants to commence their research before financing arrives; researchers who have obtained external research grants during several years are candidates for Research Authority Fellowships releasing them from a quarter of their teaching loads.

* Physical Development and Equipment
An "evaluation unit" was set up to evaluate research projects and work to increasing student enrollments.
Computer communication with academic centers in the world was expanded with the held of the Inter-University Computing Center (IUCC). An IBM 4381/13 computer was purchased, as well as personal computers for researchers.

* Preparations and Plans for the Future
The University is making every effort to develop its advanced study programs. The possibility of establishing a faculty of law is being examined. A sub-committee of the Council for Higher Education is examining the University's request to open a department of business administration.
The University has prepared a "personal doctoral program" in those fields in which it is not authorized to award the Ph.D. but has senior academic staff members who are capable of advising doctoral students.
A program designed to increase the learning capability of students is being investigated.
The Unit for Overseas Students has been reorganized and a plan for increasing the number of students from abroad has been prepared.
Plans for a joint program in gerontology with the Technion are being examined.

2.2.6 Ben-Gurion University of the Negev

* Students
The number of students in 1986/87 was the same as in 1985/86 (approximately 5,200). Efforts are being made to increase the number of students.
Student numbers in the departments of economics and industrial engineering and management continued to increase.

* Academic Staff
It was not possible to recruit new young academic staff members this year due to budgetary limitations.

* Instruction
An examining committee appointed by the Board of Governors investigated undergraduate and graduate study programs and

presented its conclusions and recommendations to the Senate of the University.
New academic divisions were added to the departments of Hebrew language and literature and behavioral sciences.
The Council for Higher Education has authorized the University to award the master's degree in Jewish Thought.

- Research
There was a substantial increase in the number of externally funded research grants obtained.

- Physical Development and Equipment
Steps were taken to improve teaching laboratories, in which equipment was out-dated and not in use.
Micro-computer classes were opened in 1986/87 with the help of an allocation from the PGC. These classes are in use all hours of the day.

- Preparations and Plans for the Future
The University wishes to open study programs in biotechnology, pharmacy, hotel and tourism administration, and arid zone studies. Undergraduate programs in these fields are in various stages of preparation.

- Special Events
In 1986/87 the University observed the centenary of David Ben-Gurion's birth. Several special events and meetings were held to mark this event, connected with the period of his life and him personally.

- Miscellaneous
Agreements for cooperation with universities in Ireland, Argentina and France were signed.

2.2.7 The Weizmann Institute of Science

- Students
In the Feinberg Graduate School approximately 220 students were studying for the master's degree and 350 for the doctor's degree - an increase of about 11% over the previous year. Approximately 22% of the students (120 students) are from overseas.

- Academic Staff
In 1986/87 eight staff members received appointments or promotions to tenured positions at the rank of professor or associate professor. 21 scientists were promoted to the rank of senior researcher; 12 were appointed to the rank of researcher. 9 scientists retired or left the Institute.

- Instruction
In recent years instruction in the life sciences has developed in the fields of genetic engineering, computer sciences, and artificial intelligence. The Feinberg

Graduate School supports interdisciplinary research and instruction. Students are mainly involved in research and publication of original articles in scientific journals.

* Research
The following are some of the fields in which Institute researchers achieved important results: the molecular mechanism of taste and smell; the physics of germ movement; the pathogenicity of the parasite that causes amoebic dysentery; cancer research; therapy for multiple sclerosis; chaos systems in chemistry; structure of ribosomes; plasma physics; the breaking of supersymmetry characteristics; the development of gas waves, etc.

* Physical Development and Equipment
Equipment acquired in 1986/87 included beta and gamma scintillation counters, an ultra-centrifuge, a pH spectrometer, an X-ray diffractometer, etc.
Construction of the following projects was completed: the staff building, the building for electron microscopy, and the addition of two floors to the Wolfson Building.
Construction of the solar project is nearing completion.

2.2.8 The Open University of Israel

* Students
227 students received the bachelor's degree from the University in 1986/87. To date 582 men and women have received this degree from the University (54% men and 46% women). Approximately half of the graduates are in the 35-50 age group. 75% of them studied the humanities and social sciences.

* Academic Staff
22 staff members, from the rank of lecturer to full professor, hold academic appointments from The Open University.

* Instruction
The University offers 168 courses. An additional 102 courses are in various stages of preparation.
With the definition of specific fields of study leading to the bachelor's degree, each student who obtains 10 credit points must present a program for the completion of his studies, taking into consideration the requirements of his field. In 1986/87 "personal tutors" were appointed to assist students in overcoming difficulties encountered in distance learning.

* Research and Development
An increasing number of educational institutions approached the University with requests to assist them in developing courses and educational materials.

* Equipment
The University's first microvax computer was installed in 1985/86 and an additional one in 1986/87. The transition to an independent computer center will serve the administration, the evaluation team, and the research needs of the staff of the University.

* Preparation and Plans for the Future
In view of the increasing number of students who seek intensive tutorials in weekly sessions (in regional colleges and other institutions), the University will launch a project to develop methods of intensive tutorials compatible with self-learning.
A master-plan for the development of courses in the field of management was approved.

2.2.9 Bezalel - Academy of Art and Design, Jerusalem

* Students
The number of students applying for admission is stable and about 20% of them are admitted. In 1986/87 the number of applications to study industrial design and gold and silversmithing increased, while applications to study ceramic design and fine art decreased.

* Academic Staff
The number of academic staff members has not changed in recent years. In 1986/87 guest lecturers from corresponding schools of art and industrial design institutions abroad came for periods of two weeks to a semester.

* Instruction
Agreements for the exchange of students and lecturers, for periods of one trimester or semester, were signed with 12 institutions in the US and Europe. In 1986/87 15 students from abroad studied at Bezalel within this framework.

* Development
Construction of the new wing of the Bezalel building on Mt. Scopus began. This wing will encompass 8,000 sq. meters and will provide space for the four departments that have not yet transferred to permanent premises, for inter-departmental units, administration, a library, and space for public activities.

* Events
Several exhibitions of works by Bezalel students were held in Tel-Aviv and Jerusalem.
Five Bezalel graduates and teachers and four recipients of the Bezalel Prize participated in an exhibition of contemporary art that took place in Kassel, Germany.
A student from the Department of Environmental Design won first prize (from among 182 participants) in the 1987

William Van Alen Memorial Fellowship - 16th Annual Competition. The project was the (Utopian) planning of the University of Timbuktu.

2.2.10 The Jerusalem Rubin Academy of Music and Dance

* Students
In 1986/87 there were approximately 370 students in the Academy. This number includes students in the Department of Performing Arts, the Department of Music Education, the Department of Theory, Composition and Conducting, the Department of Dance and Movement, and students studying for the M.A. Mus. degree (offered jointly with the Hebrew University of Jerusalem).
In 1986/87 the number of students in the Department of Performing Arts, the Department of Music Education and in the program of studies leading to the "Artist Diploma" increased.

* Academic Staff
In 1986/87 the academic staff was augmented by the addition of new teachers. Furthermore, artists of international renown and guest lecturers from abroad taught for a semester or summer courses.

* Instruction
Several changes were made in the curriculum in order to raise the level of study in some fields. In subjects requiring proficiency, students were grouped according to the level of their proficiency. The Academy implemented new methods of instruction, held seminars and study-days, opened performance workshops and developed them into ensembles, and held competitions in performance, composition and dance.
The transfer of the Academy to the campus on Givat Ram enabled it to expand individual practice facilities and develop activities designed to enhance academic fields and proficiency.

* Physical Development and Equipment
The Academy acquired up-to-date teaching aids, completed the selection of musical instruments taught at advanced levels, and increased its collection of instruments.
The electro-acoustic laboratory was developed and equipped, permitting research into modern musical acoustic phenomena.

* Preparation and Plans for the Future
The Academy defined its goals and new directions for development according to the artistic needs of the State in coming years. Emphasis will be placed on workshops in performance, dance and creativity, and artistic bodies. For this purpose inter-departmental cooperation will be

increased and extra-curricular activities will be expanded.
Cooperation with the Hebrew University on the Givat Ram campus will permit an artistic revitalization of the campus.
Preparations are underway for a summer semester, within the framework of the summer school, for general studies and artist classes. Resources have been allocated for the expansion of activities of the "Friends of the Academy" and for closer cooperation with the Academy's high school and conservatory.
A master-plan for the next century has been prepared, envisioning the concentration of all three institutions together on the Givat Ram campus. New academic curricula will be prepared, to be combined with the performing arts (music, dance and acting).

- Special Events
A gala concert was held to mark the Academy's fortieth anniversary, at which honorary degrees were conferred and special shows were held.

2.2.11 Jerusalem College of Technology

- Students
Students at the College study for the "Bachelor in Technology and Applied Science" degree in three different fields: physics/electro-optics, electronics, and computer sciences. Approximately 15% of the students are also enrolled in the Department for Science Education.
About a third of the students are studying within the framework of the armed forces academic reserve program.

- Instruction
The physics/electro-optics program includes classical and modern physics with emphasis on optical physics.
The computer science program has three subdivisions: administrative data systems, micro-computers, and computer embedded systems (systems control and robotics).
In electronics emphasis is on digital systems, micro-computers, robotics and micro-waves.
In his third year of study each student must complete an independent applied project as training for his future role in industrial development. Many of these projects are suggested by industrial firms, in which case the students are guided in their work by an advisor from the industrial sector together with an instructor from the College's teaching staff. In addition to technological subjects, each student studies religious subjects.

- Faculty Research
The academic staff is involved in the development of systems for traffic safety and control, ion-etching,

pattern recognition, medical physics, control systems for robots, and solid state devices.

* Preparations and Plans for the Future
Staff members are studying commercial and religious-law aspects of high-tech industrial management in modern competitive and communication conditions. These subjects will become part of the curriculum for fourth-year students.
In 1987/88 research laboratories in the field of the solid-state will be expanded and micro-wave and digital processing laboratories established.

2.2.12 Shenkar - College of Textile Technology and Fashion

* Students
In 1986/87 there was no significant change in the number of students at the College. However, the level of candidates for admission has risen.

* Academic Staff
There was also no significant change in the number of academic staff members. Young staff members, some of them graduates of Shenkar, are taking an active part in research and teaching.

* Instruction
Efforts have been made to strengthen multi-disciplinary study programs in order to prepare graduates for work in all areas of advanced industry.
Study programs that utilize computers have been expanded, as necessitated by the rapid computerization of the textile industry world-wide.
Shenkar students have taken part in special programs in various institutions abroad, gaining experience in commercial organizations and with internationally known manufacturers.

* Applied Research
Applied research projects in two fields were utilized commercially: an automatization system for sewing processes (commercial rights were awarded to an Israeli firm) and a process for treating cotton to prevent stickiness (rights to exploit this process were sold to a European firm).
Exploratory applied research continues in the field of textile technology as does the international market research project for the clothing and textile industries.

* Physical Development and Equipment
A new building is being planned for the library and clothing and textiles archive.

- Preparation and Plans for the Future
  The College is investing much effort in obtaining resources for strengthening and developing contractual applied research.

3
PLANNING, INFORMATION AND NEW UNITS

3.1
Planning

The PGC is involved with long-term planning of the higher education system as well as current issues with planning aspects.

In 1986/87 the PGC continued its activity in general and specific subjects, in accordance with the recommendations and conclusions of its "green paper" on planning ("The Higher Education System in Israel: Guidelines for the Development of the System and its Planning for 1988 with a First Glance at 1995", published in 1983).

3.1.1 Undergraduate Studies

The issue of undergraduate studies has occupied the higher education system and those in charge of it in recent years. Discussions center on the nature of the bachelor's degree, its meaning, purpose and cost - from the points of view of the State, the institutions of higher education, and students. Ways in which the bachelor's degree could be made more attainable to students who are capable of undertaking academic study and completing it successfully were also discussed.

In 1986/87 the PGC held several discussions on this subject. A background document ("Undergraduate Studies in the Higher Education System" by R. Silberberg, 1987 - Hebrew only) was prepared. This document describes the development of the undergraduate student population in the past and forecasts its development in the future; it presents a profile of an entering class of undergraduate students, analyzes the characteristics of the undergraduate population (fields of study, choice of place of study, population groups); and it describes the process of commencing academic study, the progress of studies, and the occupation of graduates upon completion of their studies.

The principal findings of the study are as follows:

- The great increase in the number of undergraduate students in the 60's (primarily in the second half) dropped down to about 5% per year in the first half of the 70's and 2% per year in the past decade. In the 80's the size of the relevant age cohorts has stabilized, as did the number of applications for admission and the number of entering undergraduates.

* Approximately 38% of the average cohort of 17-18 year-olds receive matriculation certificates (about 20% of these in the vocational stream). Approximately 70% of the relevant age cohort reach the 12th year of schooling, and about 55% are in classes that prepare for the matriculation examinations.

* Approximately 15-18% of the relevant age cohort commence higher education, which represents about 70% of those who had applied for admission (some manage to enter only after presenting their candidacy for admission several times). A further 20% of the age cohort enter other post-secondary programs of study.

* Approximately 20% of those commencing study in a university have previously completed a pre-academic preparatory course (either in courses intended for holders of matriculation certificates whose grades are not high enough and who are from underprivileged socio-economic backgrounds, or in refresher or supplementary courses).

* Out of an entering class of undergraduate students approximately two thirds complete their studies and receive a degree and one third drop-out. Four years is the mean length of time needed for completion of an undergraduate course of studies, although the official period of time required is generally three years. This is particularly noticeable in the humanities but is also found in the social and natural sciences. 25% of beginning students change their subjects of study before graduation.

* In choice of subject studied, there is a tendency among students to view academic study as a means of obtaining a profession or as preparation for employment. The number of students requesting to study medicine, law, business administration, and electrical engineering and electronics is much greater than the number of available places and, as a result, only those with high grades are admitted.

* A large proportion of undergraduate students study the humanities and the social sciences. However, Since the beginning of the 80's the percentage of students studying sciences and technology has risen (from 32% to 37%). The percentage of science and technology students among recipients of degrees is even larger because the completion rates of these students are higher.

* The opening of institutions of higher education in the north and the south of the country enabled the rate of participation in higher education among the population in peripheral areas to increase. However, there are still differences in rates of participation between the populations in peripheral areas and those in the center of the country. There is a definite tendency among students to

choose an institution of higher education close to their place of residence.

* The numbers of men and women undergraduate students are equal. There are, however, difference between the sexes in their choice of subjects. The completion rates of women are higher than those of men.

* There is a moderate increase in the number of mature (age 30+) undergraduate students. About half of them study the humanities and a further third the social sciences.

* Significant differences in the rate of participation in higher education appear when students are classified according to socio-economic background (which is represented by the fathers' place of birth). The rate among Israeli-born students whose fathers were born in Europe/America or Israel (the fathers of 80% of whom, approximately, were also born in Europe/America) is 3.8 times higher than those of Africa/Asia origin, and 5 times higher than those of non-Jews. There is however, a trend of increasing rates of participation among the "weaker" sectors of the population, relative to their increase in the general population (of the relevant age groups). In the past decade the percentage of students of Asia/Africa origin has increased from 20% to 30% of the total number of undergraduate students, while their percentage among the general population aged 20-29 has only increased from 43% to 45%.

* The percentage of recipients of the bachelor's degree continuing on to advanced degrees (master's and Ph.D.) is decreasing. While in 1955-1968 approximately 40% of the recipients of bachelor's degrees also received advanced degrees (25% the master's degree and 15% the master's and doctor's degrees), among those who completed their studies in 1969-1974 this rate had decreased to about 30%, and about 20% of those who graduated in 1975-1978. It should be noted that a large percentage of the graduates in the natural sciences continue to study for advanced degrees, while most of the graduates in the humanities and social sciences do not continue beyond the bachelor's degree.

* Graduates are absorbed into the labor market with no major difficulty. One reason for this smooth absorption is the gradualness of the process, which begins for many of them while they are still students working to support themselves during their studies. Public services are the principal employers of academics, with the teaching profession a major component. This is particularly true among graduates in the humanities (55% of whom are employed as teachers), but also among graduates in the natural sciences not continuing to advanced degrees the percentage becoming teachers is 35%. The average for all academic employees in

1984, holders of the bachelor's degree, was 20% employed as teachers (among women this percentage was 30%).

* The connection between the subject studied at the undergraduate level and occupation after graduation is unequivocal only in clearly professional areas such as engineering, law, social work or para-medical professions. In the humanities, social sciences and basic natural sciences the connection was not so close, except in teaching. Only 57% of those holding a bachelor's degree as a final degree define the connected between their studies and their later employment as "closely connected".

Principal forecasts for the future as presented in the document are as follows:

* The number of students in the future is dependent upon the policy of the higher education system regarding its target population: if the target population is those who can comply with the requirements for admission that are applied today, then student numbers can be expected to increase at a similar rate to that of the increase in the general population of the relevant age group (i.e., 2-2.5% until 1992/93, 3% from 1992/93 - 2000, and stabilization after 2000). The higher education system is capable of absorbing this increase with certain changes and adaptations. If, however, it is decided to expand the target population and change the required qualifications, then the rate of increase in student numbers could be higher, providing that appropriate measures will be taken.

* According to forecasts of government agencies entrusted with national economic planning and manpower planning, balance is expected between the general demand for and supply of academically qualified manpower in the economy. It is difficult to make the long-term predictions for specific professions regarding manpower that are necessary for planning the higher education system. In professions for which reliable forecasts are available (certain engineering fields), the higher education system should adapt itself as needed. In the short term, student demand for areas of study can be expected to reflect their responses to trends in the labor market, although counselling and guidance can improve the choice-making process.

The PGC set out the following questions for discussion:

* What target-population has higher education set for itself? Should requirements for admission be changed?

* Should the process of admission be changed or made more variable by using alternative methods of admission, and the

number of students admitted through preparatory pre-academic frameworks, such as a preparatory freshman year, be increased? How should such alternative admission processes be organized and financed?

* How can the processes of presenting candidacy, registration and admission to the universities be made more efficient? (Should a national central registration office be established?)

* How can students be directed to institutions that have the capacity to admit more students? What is the PGC's role in determining the number of students in each institution?

* How can the progress of study for the bachelor's degree be improved and made more efficient? How can changes in field of study and the drop-out rate be reduced? How can the de-facto duration of studies be brought into line with the official duration of studies? Will special preparatory freshman year programs reduce the drop-out rate?

* What can be the contribution of the Open University of Israel to meeting the demand for higher education which can not be supplied by the regular universities? Can it adapt its study program to the capability for study of additional populations, and if so, how?

* Is there a need for new kinds of institutions - such as colleges? If yes, what will they be like?

* Should the arrangements for the transfer of students and graduates of post-secondary programs to institutions of higher education for the completion of academic degree programs be institutionalized, and if so, how?

* How should the academization of post-secondary education (in teacher training, nursing, etc.) continue and should it be expanded to include other fields (practical engineering, optometry, radiography, administrative fields such as tourism and medical secretaryship, etc.)?

* Is there room for private initiative in the establishment of institutions outside of the existing public system? These institutions would be wholly financed by income from tuition fees rather than from public or government funds and would operate according to different rules regarding faculty recruitment, terms of employment, teaching-load, salaries, etc. What should be the public supervision, academic and financial, of such institutions?

* Is there room for degree-programs in the universities that will be run according to special rules, different from the usual rules, regarding tuition fees, the appointment, wages and employment of faculty, etc.?

* Should we strive to remove from the university framework certain subjects that do not necessarily involve any degree of research, such as art, accountancy, nursing, etc.?

The PGC's recommendations are as follows:

* Responsibility for higher education in Israel in all forms, universities and non-university institutions of higher education, rests with the Council for Higher Education.

* The higher education system should provide solutions to all forms of demand for higher education. The system must prepare itself to absorb the increase in student numbers expected in coming years, arising from the increase of numbers in the relevant age groups on the one hand, and from the increase in students from population groups whose participation rates in higher education are currently low but who may seek admission to higher education in greater numbers in the future on the other hand.

* The existing universities are the heart of the system and they, primarily, are charged with adapting themselves to needs, while maintaining their high academic standards:

  New thought must be given to content, teaching methods and structure of undergraduate studies, particularly in the humanities and social sciences, in order to make them suitable to the population of the future. The possibilities include: the introduction of a preparatory freshman year as a preliminary stage before further undergraduate studies; the division of studies into two stages - general studies and disciplinary specialization - perhaps while lengthening the duration of undergraduate studies to four years (instead of three); differentiation in study programs according to purpose; establishment of new channels for study; and the decentralization of teaching, while conducting part of it off the main campus. These steps should be taken while raising the standard of instruction for students who are suited for advanced study and, at the same time, promoting the research functions of universities.

  Steps should be taken to reduce undergraduate teaching costs in the universities. The possibility of altering the terms of employment of teaching staff, in line with the proposed changes in the duration of studies, should be examined. Consideration should be given to the possibility of removing certain subjects from the universities and transferring them to other frameworks.

  The course of studies should be made more efficient in order to shorten the student's period of "disorientation" and reduce the drop-out rate.

Steps should be taken to simplify application and admission procedures and make them more efficient. The universities should consider the establishment of a center for registration to all the universities, along the lines of their National Center for Testing and Evaluation.

Ways should be found of channeling students to those universities that have unutilized capacity for the absorption of additional students.

The economy's demand for manpower in professions in which there are shortages should be met.

* Plans for the establishment of new institutions of higher education - including private initiatives not to be financed from public funds - will be examined carefully, taking into account the capability of the existing system to fulfill needs.

* The PGC is of the opinion that there is no room for the establishment of new institutions of higher education specializing in general undergraduate teaching. PGC forecasts show that it will be possible to meet expected demand in coming years within the framework of the existing system.

* Further academization of professional post-secondary institutions (including teacher training institutions) will be taken care of in accordance with current policy, which calls for a careful and controlled approach. Preference should be given, as far as possible, to arrangements for the completion of studies and granting of bachelor's degrees by one of the existing university institutions, including the Open University, which will act as "agents" on the campuses of post-secondary institutions.

These conclusions were presented to the Council for Higher Education. The Council discussed this subject in 1986/87 and will continue its discussion in 1987/88.

3.1.2 Biotechnology

The PGC has discussed the needs of the economy and industry for qualified personnel in the field of biotechnology and the higher education system's readiness to promote this subject. A study day was held on this subject, with the participation of representatives of the biotechnological industry and the institutions of higher education.

In the life sciences today there is a noticeable trend toward the development of new fields connected with biotechnology and genetic engineering, while, at the same time, the "classical" fields such as zoology and botany are being weakened.

The PGC's policy is not to support new undergraduate study programs in these new fields but to support specialized programs leading to the master's degree, based on existing study frameworks.

In 1986/87 the PGC gave its approval to the registration of students for a study program in biotechnology at the Hebrew University of Jerusalem (final approval is conditional, pending a decision by the Council for Higher Education). A study program in biotechnology at Tel-Aviv University has been presented to the Council for approval.

3.1.3 Subject Review - University Schools of Education

A review of university schools of education has been undertaken as part of the PGC's program of subject reviews. The Chairman of the PGC appointed a visiting committee to appraise the activities of the schools of education, their contribution to research and the application and dissemination of advanced knowledge in the field of education, and the training of secondary school teachers. The committee was asked to consider developments in the process of academization of teacher training institutions.

3.1.4 The Training of Teaching Personnel

In 1980/81 the Council for Higher Education prepared the groundwork for the academization of teacher training institutions in Israel when it adopted the prototype model for the "Bachelor of Education" degree.

Today there are six academic institutions for the training of teaching personnel:

1. **Michlala, Jerusalem College for Women** - authorized to award the degree of "Bachelor of Education" (for junior high school teachers only);
2. **The Zinman College of Physical Education at the Wingate Institute** - authorized to award the degree of "Bachelor of Education";
3. **Levinsky Teacher's College** - authorized to award the degree of "Bachelor of Education"; its School for Music Instructors has a permit to open and maintain an institution of higher education;
4. **The David Yellin Teachers College** - authorized to award the degree of "Bachelor of Education" in most of its programs;
5. **Beit-Berl Teachers Training College** - authorized to award the degree of "Bachelor of Education" in most of its programs;
6. **State Teachers College Seminar Hakibbutzim** - has a permit to open and maintain an institution of higher education for most of its programs.

At the end of the 1986/87 academic year examination of two more institutions commerced:
1. **The A.D. Gordon Teachers Training College in Haifa;**
2. **Oranim - The School of Education of the Kibbutz Movement.**

The institutions for the training of teaching personnel are funded by the Ministry of Education and Culture. The Ministry has yet to prepare data on the demand for academically qualified teaching personnel in the school system and forecasts for this demand.

3.1.5 The Training of Teachers for Technological Education in Secondary Schools

In June 1985 the Chairman of the PGC appointed a committee to examine the academic training of teachers for technological education in secondary schools. The committee recommended, inter alia, that there should be a program of studies leading to the degree of "Bachelor of Technological Education", according to a prototype model (which was also proposed) and that existing programs in the institutions of higher education for the training of teachers for technological education should be strengthened.

In November 1985 the Council for Higher Education adopted the committee's recommendations and approved the prototype model for studies, leading to the degree of "Bachelor in Technological Education".

The ORT College in Jerusalem has opened a program for the training of teachers for technological education. This program, which is based on the above-mentioned prototype model, is being examined by a sub-committee of the Council for Higher Education.

3.1.6 The Academization of Para-Medical Professions

The Ministry of Health, the General Sick Fund, the Hadassah Medical Organization and the schools of medicine are all in favor of a gradual academization of the para-medical professions.

In 1985/86 - 1986/87 no new programs were added to those already authorized to award academic degrees. (At the beginning of the 1987/88 academic year a joint University of Haifa - Technion program in occupational therapy was authorized to award academic degrees.)
The programs currently leading to academic degrees in the para-medical professions are as follows:

Nursing
Five schools of nursing, within the framework of three different faculties, are authorized to award a bachelor's degree in nursing:
- the Henrietta Szold School of Nursing at the Hebrew University of Jerusalem;
- the Assaf Harofeh Hospital School of Nursing - affiliated with the Henrietta Szold School of Nursing;
- the Kaplan Hospital School of Nursing - affiliated with the Henrietta Szold School of Nursing;
- the Department of Nursing at Tel-Aviv University, which also awards a master's degree;
- the nursing program at the Recanati School for Health Professions in the Community at Ben-Gurion University of the Negev.

Physiotherapy
There are two academic programs leading to a bachelor's degree in physiotherapy:
- the Department of Physiotherapy at Tel-Aviv University
- the physiotherapy program at the Recanati School for Health Professions in the Community at Ben-Gurion University of the Negev.

Occupational Therapy
There are three academic programs leading to a bachelor's degree in occupational therapy:
- at the Hebrew University of Jerusalem;
- at Tel-Aviv University;
- the joint University of Haifa - Technion program.

3.1.7 Strengthening Inter-University Cooperation

The PGC encourages cooperation between the universities. In recent years inter-university cooperation has achieved the following: the Inter-University Computing Center was established at Tel-Aviv University; a communications network between university computers, connected to international networks, was set up; unified computerization of university libraries was begun; the National Center for Testing and Evaluation was set up in place of separate units for testing in each institution; the Hebrew University's Institute for Oceanography in Eilat became the Inter-University Institute in Eilat, where oceanographers, marine biologists and geologists from all universities work together; the Institute for Desert Research in Sede Boker and the Ben-Gurion Research Center, both part of Ben-Gurion University of the Negev, were expanded and are open to researchers from all the institutions of higher education; the Israeli Academic Center in Cairo was established and benefits researchers from all universities.

To date, the potential power of central purchasing by the universities is utilized only in the area of computers.

Joint academic degrees - degrees awarded jointly by two different institutions of higher education - are awarded in a few programs: a bachelor's degree and a master's degree in economics awarded jointly by the Technion and the University of Haifa; a master's degree in music awarded jointly by the Hebrew University of Jerusalem and the Jerusalem Rubin Academy of Music and Dance. In addition, a joint Technion and University of Haifa bachelor's degree program in occupational therapy was operated for the first time in 1986/87.

Further information on the PGC's efforts to encourage inter-university cooperation may be found below in sections 6.1 (computers), 6.2 (libraries), 7.1 (the Tutorial Project), 8.3 (pre-academic preparatory courses) and 6.4 (oceanography).

3.2 Information and Statistics

3.2.1 Data Collection and Processing by the Central Bureau of Statistics

A statistical data base is vital for the PGC's work. Most of the data are collected and processed by the Central Bureau of Statistics, as commissioned by the PGC.

The work program in statistics agreed upon with the Central Bureau of Statistics includes regular collection of data, periodic activities, and one-time, special activities.

Every year statistical reports are published on candidates, students, and recipients of degrees in the universities and non-university institutions of higher education.

The Central Bureau of Statistics collects other data relevant to the planning of higher education, such as data on the educational level of the population, the scope and fields of study in secondary schools, manpower characteristics, including education and employment, research activities and research manpower.

The following reports were published during 1986/87:

Survey of Graduates of Universities and Post-Secondary Education 1984. Vol. A. Main Findings. Central Bureau of Statistics, Special Series no. 795, 1987.

Students in Universities 1985/86. Series of Education and Culture Statistics no. 172, reprinted from the Supplement to the Monthly Bulletin of Statistics, no. 10, 1987.

Recipients of Degrees from Universities 1985/86. Series of Education and Culture Statistics no. 169, reprinted from the Supplement to the Monthly Bulletin of Statisitcs, no. 7, 1987.

In preparation; **Follow-up Survey - Candidates for First Degree Studies at Universities in 1981/82.**

Up-dated statistics are also published in the chapter "Education and Culture" in the Statistical Yearbook.

3.2.2 Data on Manpower in the Universities

The PGC strives to improve its and the universities' achievements in the swift and precise processing of data on manpower in the universities.

The PGC commissioned extensive surveys on manpower in the universities for the years 1978/79 and 1981/82 and carried out more limited surveys for the years 1982/83 - 1985/86. These surveys, based on data collected from the universities, present a detailed picture of the situation of the academic, administrative and technical manpower employed in the universities and its break-down according to wage-grade scales and source of funding.
In 1986/87 the PGC took the necessary steps to ensure that in the future the universities themselves will process the "raw data" and will forward the results to the PGC at regular intervals and in a standard format. This will enable the PGC to set up a reliable data-base in this field, for more efficient budgeting as well as for statistical purposes.

3.3 New Units and Closure of Units

In 1986/87 the PGC authorized the opening of the following new units after determining that approval by the Council for Higher Education was not required:

The Technion - Israel Institute of Technology
- a joint Technion - University of Haifa doctoral program in economics;
- a non-thesis master's degree program in industrial management;
- the division of the study program in architecture into two separate programs - in architecture and architecture-urban construction.

The University of Haifa
- the bachelor's degree program in mathematics was divided into three separate programs: a dual-major program in mathematics; a single-major program in pure mathematics; and a single-major program in mathematics and computer sciences;
- the name of the educational trend in the Department of Psychology was changed to the clinical-educational trend;

* a master's degree program in existing fields for students of the National Defense College.

Ben-Gurion University of the Negev

* a bachelor's degree program in nursing intended for women with families;
* new programs, within the framework of the bachelor's degree program in humanities, in the following fields: demography, Hebrew language and literature, modern Hebrew literature, popular literature, and medieval poetry.

The following units were closed in 1986/87:

The Hebrew University of Jerusalem

* a master's degree program in applied mathematics in the School for Applied Science and Technology;
* a master's degree program in applied criminology in the School for Applied Sciene and Technology.

4
THE HIGHER EDUCATION BUDGET

The higher education budget includes the PGC's allocations to the institutions of higher education (direct allocations to ordinary budgets and special allocations), allocations for development, and the PGC's administrative budget.

4.1
PGC Allocations

One of the functions of the PGC, as set forth in its terms of reference, is to submit budget proposals for higher education to the Government and to allocate the approved global budget to the institutions of higher education.

According to the Council for Higher Education Law, the institutions of higher education are at liberty to conduct their academic and administrative affairs autonomously, within the limitations of their budgets.

Total PGC allocations in 1986/87, excluding the development budget, amounted to 439,381,400 NIS (New Israeli Shekels), according to estimates of implementation.

The largest portion of the higher education budget is allocated in the form of direct global allocations to the institutions of higher education. The remainder is allocated for special subjects and for activities connected with research and academic development.

Details of the PGC's allocations appear below:

Implementation of PGC Allocations to Higher Education

	1986/87 Estimate	1985/86 Implement.
Total (NIS thousands, current prices)	439,381.4	331,121.4
1 Direct Allocations	324,760.0	253,037.0
1.1 Universities	301,380.0	234,690.0
1.2 For electronics and computers	12,855.0	10,125.0
1.3 Non-university institutions **	10,525.0	8,222.0
2 Special Obligations	21,600.0	-
3 Matching Allocations	43,904.4	38,253.7
3.1 Universities	43,766.6	38,192.6
3.2 Non-university institutions	137.8	61.1
4 Allocations for Research	17,003.7	12,160.1
4.1 Yigal Allon Fellowships	1,871.6	1,037.8
4.2 Scientific equipment	3,029.4	2,855.3
*4.3 Fund for Basic Research	4,120.0	3,750.0
*4.4 Joint PGC - Ministry of Defense Research Fund	690.0	650.0
*4.5 Joint Atomic Energy Commission - PGC Research Fund	583.0	336.0
*4.6 USA-Israel Education Foundation	24.5	22.5
4.7 Research increments "B"	5,715.2	3,452.5
*4.8 Research fund for electronics, computers and communication	970.0	-
*4.9 Technological education assoc.	-	56.0
5 Earmarked Allocations	9,364.0	6,815.8
5.1 Computer centers	1,860.0	1,781.3
5.2 Micro-computers	640.0	600.0
5.3 Purchase of books & periodicals	3,714.0	2,543.0
5.4 Special program in electronics at Tel-Aviv University	3,150.0	1,891.5
6 Inter-University Cooperation	1,804.4	1,422.6
6.1 Inter-Univ. Computing Center	236.5	142.7
6.2 Inter-library cooperation and "Aleph" program	657.9	569.9
6.3 Inter-university center in Eilat	910.0	710.0
7 Aid to Students	7,235.0	8,838.0
*7.1 Perach (Tutorial Project) scholarships	5,995.0	7,280.0
*7.2 Students Loan Fund	1,240.0	1,558.0
8 Other Subjects	6,028.8	4,061.9
8.1 Pre-academic preparatory courses	2,554.5	1,091.1
8.2 Academic programs in regional colleges	152.0	73.5

	1986/87	1985/86
8.3 Teaching of accountancy	60.0	95.0
8.4 Tax refund - Open University	2,270.2	1,770.5
*8.5 Israeli Academic Center in Cairo	310.0	300.0
8.6 Clinical appointments in peripheral hospitals	250.0	131.8
8.7 Special allocation to Ben-Gurion University	432.1	600.0
9 PGC's Administrative Budget	1,430.0	1,201.5
10 Budgetary Transfers	6,251.1	5,330.8
*10.1 Israel Academy of Sciences and Humanities	825.6	629.2
*10.2 Hadassah Medical Organization - medical research	4,952.0	4,370.0
10.3 Miscellaneous	473.5	331.6

* Allocations not transferred directly to the universities.
** Includes an allocation to the Ruppin Institute of Agriculture amounting to NIS 135,000 in 1986/87 (in 1985/86 NIS 105,000).

Apportionment of PGC Allocations
(In NIS and as Percentage of Total Allocations)

Total (NIS Thousands)	439,381.4	100%

Direct allocations to the institutions of higher education	311,905.0	73.9%
Allocations for electronics & computers	12,855.0	
Matching allocations to endowment funds	43,904.4	10.0%
Earmarked allocations for research and special subjects (1)	28,172.1	6.4%
Other allocations (2)	41,114.9	9.4%
PGC's administrative budget	1,430.0	0.3%

(1) Includes allocations for research, earmarked allocations, and inter-university activities.
(2) Includes aid to students, miscellaneous subjects and budgetary transfers.

4.2
The Ordinary Budget

Activities in the institutions of higher education can be classified according to three budgetary frameworks:

* the ordinary budget, which is the source of regular current activity in the institutions in teaching and research;
* closed budgets, mostly financed from outside sources, for research and special study programs;
* the development budget.

*

Most of the expenditures of the institutions of higher education are included in the ordinary budget: wages, purchase of scientific equipment; purchase of books and periodicals; purchase of materials and expendable supplies; routine maintenance; renovations; aid to students, etc.

The PGC approves the budgetary frameworks of the institutions of higher education as a condition for PGC participation in their budgets. The approved frameworks for the ordinary budgets of the institutions in the 1986/87 academic year amounted to NIS 711,420,000. (Updated budget at current prices).

The components of the ordinary budget are presented in the following tables:

The Ordinary Budget of the Universities - 1985/86 and 1986/87
(NIS Thousands, at Current Prices)

	Total Expenditures	PGC Allocations		Income From Donations	Income From Student Fees	Other Income	Total Income
		Direct (3)	Earmarked				
1985/86 (1) - Total	639,776	244,690	56,191	60,191	104,426	99,886	565,384
Hebrew U.	178,124	63,985	17,767	18,813	23,190	2,102	125,857
Technion	98,339	47,500	8,547	11,712	11,628	15,252	94,639
Tel-Aviv U.	146,285	50,020	10,149	4,667	34,805	31,219	130,860
Bar-Ilan U.	47,342	20,855	3,342	1,245	11,434	6,074	42,950
U. of Haifa	31,379	11,850	1,959	462	9,406	6,863	30,540
B-Gurion U.	49,578	24,230	6,647	4,357	8,099	8,032	51,365
Weizmann I.	76,210	22,820	7,524	16,909	-	28,599	75,852
Open Univ.	12,519	3,430	256	2,026	5,864	1,745	13,321
1986/87 (2) - Total	694,240	314,235	93,306	78,377	119,895	88,427	694,240
Hebrew U.	179,140	81,450	26,967	26,860	27,850	16,013	179,140
Technion	116,580	61,880	14,386	17,380	15,650	7,284	116,580
Tel-Aviv U.	149,480	65,345	18,905	6,320	38,200	20,710	149,480
Bar-Ilan U.	57,240	27,150	5,783	3,160	15,000	6,147	57,240
U. of Haifa	35,100	14,860	4,315	750	11,700	3,475	35,100
B-Gurion U.	60,270	30,320	9,530	3,160	10,875	6,385	60,270
Weizmann I.	82,670	28,830	10,968	18,447	-	24,425	82,670
Open Univ.	13,760	4,400	2,452	2,300	620	3,988	13,760

Notes:
(1) According to the balance sheets of the institutions. "Other Sources" includes deficits. Total deficits in the balance sheets are approximately NIS 74 million at current prices. An analysis of balance sheets shows that most of the deficits stem from re-evaluation of deficits accumulated in previous years, from accounting adjustments and from the redirection of expenses from other budgets to the ordinary budget.
(2) Approved budgetary frameworks at current prices.
(3) Includes allocation for electronics and computers.

The Ordinary Budget of the Non-University Institutions of Higher Education - 1985/86 and 1986/87
(NIS Thousands, at Current Prices)

	Total Expenditures	Direct PGC Allocation	Earmarked Allocations	From Donations	From Stud. Fees	Other Income	Total Income
1985/86 (1) - Total	14,118	7,525	654	1,510	2,195	2,300	14,184
Bezalel - Acad. Art & Design Jerusalem	5,201	2,715	-	354	304	1,819	5,192
Rub. Acad. Music & Dance Jerusalem	2,180	1,270	195	-	600	115	2,180
College of Technology	4,067	1,850	442	926	658	266	4,142
Shenkar - College of Tex. Tech. & Fashion	2,670	1,690	17	230	633	100	2,670
1986/87 (2) - Total	17,180	10,390	138	1,710	4,190	752	17,180
Bezalel - Acad. Art & Design Jerusalem	5,740	3,740	46	395	1,540	19	5,740
Rub. Acad. Music & Dance Jerusalem	2,970	1,750	72	-	950	198	2,970
College of Technology	5,410	2,710	-	1,225	950	525	5,410
Shenkar - College of Tex. Tech. & Fashion	3,060	2,190	20	90	750	10	3,060

(1) Implementation according to the balance sheets of the institutions.
(2) Final budget at updated prices.

Income of the Ordinary Budgets of the Institutions of Higher Education - 1986/87*

Total (NIS Thousands)	711,420.0	100%
Direct PGC allocations (includes allocations for electronics and computers)	324,625.0	45.6%
PGC matching allocations to endowment funds	43,904.4	6.2%
PGC earmarked allocations for research and special subjects**	49,539.6	7.0%
Income from tuition fees and levy	124,085.0	17.5%
Income from donations	80,087.0	11.2%
Miscellaneous income	89,179.0	12.5%

* Excluding the Ruppin Institute of Agriculture
** Including allocations for research, earmarked allocations, inter-university cooperation and other subjects.

4.2.1 The Direct PGC Allocation

The PGC's direct allocation represents the principal component of the budgets of the institutions of higher education. The apportionment of the allocation between the institutions is determined each year based on various indices such as the number of students, the number of graduates, the relative cost of different fields and levels of study, essential teaching trends and the scope of research. In recent years the relative weight of the PGC's direct allocation as a component of the income of the institutions of higher education has decreased, while total PGC allocations have increased, for three main reasons:

a. the growth in the share of income deriving from tuition fees (including the special levy);
b. an increase in the PGC's earmarked allocations for research and special subjects;
c. an increase in the PGC's matching allocations for endowment funds.

4.2.2. Matching Allocations for Endowment Funds

Matching allocations are granted in order to encourage the accumulation of donations in endowment funds, the proceeds from which are added to the current budgets of the institutions of higher education. These allocations had their beginning in "historical obligations" by Ministers of Finance, in the period preceding the PGC's establishment, to allocate special sums over and above direct government allocations for this purpose.

In recent years the Ministry of Finance no longer views endowment funds as vital for the State's foreign exchange balance and, as a result, financing for this budgetary item comes from the general State allocation to higher education.

Since 1982/83 a new method of determining matching allocations has been implemented. According to this method each institution presents to the PGC a detailed annual report audited by an accountant on any movements or changes in eligible endowment funds as well as the investments of assets in Israel. This report serves as the basis for the approval of the matching allocation for endowment funds.

The primary conditions for the approval of matching allocations for endowment funds in the institutions of higher education are as follows:

- Funds eligible for matching allocations are endowment funds deriving from donations, the purpose of which are: encouraging research, provision of chairs, recruiting academic staff, purchase of books and periodicals, maintenance of buildings and installations, and the provision of scholarships and loans to students;

- Funds eligible for matching must be deposited with an Israeli bank or with the Accountant-General and be under the control of the institutions concerned;

- The annual matching allocation is up to 7% of the total value of the institution's funds;

- The institution's income from the fruits of the invested endowment funds and the matching allocations accruing to them must be included in its annual ordinary budget;

- Each institution is requested to state in its annual financial reports income from the fruits of eligible endowment funds, which must not be lower than the real value of matching funds, adjusted for fluctuations in the exchange rate of the US$, received by the institution in the previous year.

The guidelines for reporting on endowment funds were up-dated in 1985/86. The institutions were requested to attach to

their reports to the PGC declarations by their directors that the reports were prepared and matching allocations requested in accordance with the PGC's guidelines.

The total value of all eligible funds as of the end of 1985/86 (30.9.86) was NIS 612 million (about $408 million) and serves as the basis for computing the matching allocations for 1986/87. Matching allocations to the institutions of higher education in 1986/87 amounted to approximately NIS 44 million as detailed in the following table:

Matching Allocations

	Value of the Funds 30.9.86	Matching Allocation 1986/87
Total (NIS Thousands)	611,773.3	43,904.4
The Hebrew University of Jerusalem	191,077.7	13,476.7*
The Technion - IIT	95,398.2	7,419.1
Tel-Aviv University	100,610.4	7,065.5
Bar-Ilan University	37,459.0	2,622.1
The University of Haifa	18,207.5	1,274.5
Ben-Gurion University of the Negev	75,341.2	5,475.3
Weizmann Institute of Science	89,950.6	6,296.6
The Open University of Israel	1,956.1	136.9
Bezalel - Academy of Art & Design	459.4	**45.8
Jerusalem Rubin Academy of Music and Dance	1,028.6	72.0
Shenkar - College of Textile Technology and Fashion	284.6	19.9

* Not yet computed finally.
** Includes retroactive payments.

4.2.3 The PGC's Earmarked Allocations for Research and Special Subjects

These include:

- Yigal Allon Fellowships
- Scientific equipment
- Basic research
- Research increments "B"
- Designated allocations
- Inter-university cooperation
- Pre-academic preparatory courses
- Academic courses in regional colleges
- Accountancy studies
- Tax refunds - the Open University
- Clinical appointments in peripheral hospitals
- Other allocations

These subjects are discussed in greater detail in Chapter 5 (allocations to encourage research and excellence), Chapter 6 (allocations to encourage inter-university cooperation) and in Chapter 8 (other allocations).

4.2.4 Income from Tuition Fees

Continuing erosion of the value of tuition fees until 1984/85 caused the Knesset to raise tuition fees in the institutions of higher education by means of the imposition of a "temporary tuition levy", which was to be charged at a partial rate in 1984/85 and at the full rate in 1985/86 and 1986/87. The decision to impose this levy was preceded by lengthy negotiations with students, beginning in 1983/84, on the raising of tuition fees in order to counteract erosion, as the "Katzav Committee" recommended, and in order to increase fees in real terms, as part of the new economic policy of the Government.

The levy was set at IS (Israeli Shekels - the previous currency, equivalent to 1/1000 of NIS) 55,000 in 1984 and IS 130,000 in 1985/86 and 1986/87 (based on the Consumer Price Index published on 15.8.1984).

In 1986/87 income from tuition fees and the levy represented approximately 17.5% of the total ordinary budget of the universities.

4.2.5 Income from Donations

Most donations come from abroad. Direct income from donations was expected to reach NIS 80 million in 1986/87. This does not include income from endowment funds, donations to endowment funds, and donations to the development budget.

4.2.6 Miscellaneous Income

This category includes:
* income from investments;
* sale of services (including overhead from other budgets);
* participation by government ministries and other institutions in the operation of special programs such as advanced training courses for teachers, para-medical professions, etc.

4.3 Wages

In 1986/87 the PGC continued to deal with wage issues in the higher education system while maintaining the general frameworks for salary agreements in the economy. The PGC coordinates its activities in this area with the official in charge of wages in the Ministry of Finance.

An agreement signed with the academic staffs in June 1986 determined that a comparative examination of senior academic staff wages and those of the upper quarter of civil servants employed according to the academics' and engineers' wage scales would be carried out every two years.

As a result, the PGC appointed a committee of experts which collected relevant data concerning wages in the universities and in the above-mentioned wage scales in the civil service for the months of June and July 1987 and compared them with data for the base months of October and November 1985. Salaries of academic staffs were adjusted according to the results of this examination.

Technical and administrative staffs in the institutions of higher education are employed according to the terms of the national public sector wage agreements.

4.4 The Development Budget

4.4.1 Construction in the Institutions of Higher Education

In 1986/87, as in previous years, construction in the institutions of higher education was smaller than in earlier years and relative to the general activity of the institutions: it was confined to a small number of projects.

Some construction was within the framework of the multi-year development plan for 1981/82 - 1987/88 and some was fully

financed from donations. The multi-year development plan was agreed upon between the PGC and the institutions of higher education and the PGC and the Ministry of Finance in 1982.

This multi-year plan is intended to encompass 114,000 square meters of construction, which will be financed partly by the PGC. It is composed of projects approved by the PGC from among plans totaling about 300,000 square meters proposed by the institutions. The approved plans represent an increase of about 8% over the present built-up area, or less than 1% a year until the end of the decade.

Projects included in the plan are for the development of fields having national priority, such as engineering, especially electrical engineering and electronics, and dentistry, or for the alleviation of pressing shortages of space that hamper proper functioning of the institutions.

The PGC's participation in each of the projects is pre-determined according to set tariffs which take into account the urgency of the projects, the total cost of the investment and the resources available from donations. The PGC's participation is usually up to a third of the cost and in special cases may be up to half the cost.

The multi-year plan, which was approved in principle by the Ministry of Finance, was based on the assumption that the Israeli Shekel equivalent of about $10 million would be allocated yearly. However, due to budgetary cutbacks, the sum available to the PGC for implementing the multi-year plan in 1986/87 was equivalent to only about $3.8 million. Since in 1982/83, 1983/84, 1984/85 and 1985/86 the amounts were also about 20%, 30%, 50% and 50% less than anticipated respectively, in the first five years of the multi-year plan sums allocated were about 58% of the sums agreed upon ($29 million instead of $50 million). As a result, implementation of the plan was slowed down and some approved projects were postponed.

As part of the multi-year development plan, the PGC also intended to devote resources to participation in renovations and adaptations (beyond routine repairs and maintenance which are financed from the ordinary budget) of ageing buildings and systems and in order to adapt existing structures to changing uses instead of initiating new construction. In 1982/83 and 1983/84 sums were allocated for this purpose and the PGC's participation in projects of this nature was up to 50% of the cost. However, beginning in 1984/85, due to restricted resources available to the PGC, virtually no allocations could be made.

Even projects financed entirely, including maintenance costs, from donations require the PGC's approval. Each request is examined from four aspects: the requirements of the university; the requirements of society and the economy; the

total investment involved including maintenance costs; and the availability of resources. In 1986/87 the PGC approved four small projects of this nature.

4.4.2 Financing

Total investment in construction in the higher education system in 1986/87 amounted to approximately NIS 44 million, most of this in the universities. The PGC's participation in development budgets amounted to NIS 8 million, mostly for projects included in the multi-year plan, but also for the completion of participation in projects carried out in previous years (primarily on the Mt. Scopus campus of the Hebrew University of Jerusalem).

Data on actual investments and PGC participation in development budgets in 1985/86 and 1986/87 are as follows:

Development Budgets of the Universities - 1985/86 and 1986/87
(NIS Thousands, at Current Prices)

	1985/86		1986/87	
	Actual Investments [1]	PGC Allocation	Est. of Investments	PGC Allocation
Total	40,680	9,407	44,000	7,971
Hebrew University of Jerusalem - Total	4,500	3,015	4,000	2,336
Mt. Scopus (2)	(640)	(2,097)[4]	(300)	(2,285)[4]
Technion - IIT (3)	9,900	106	11,000	-
Tel-Aviv University	9,360	2,765	16,000	2,770
Bar-Ilan University	4,430	2,622	6,000	2,035
University of Haifa	1,190	153	1,000	290
Ben-Gurion University - Total	3,260	746	1,000	540
Institute for Desert Research (2)	(730)	(235)	(600)	(290)
Weizmann Inst. of Science	8,040	-	5,000	-

[1] According to the financial reports of the universities. Includes construction, installations and furniture in new buildings but does not include basic scientific equipment which is financed from the ordinary budget.
[2] Defined as a project of special national importance.
[3] Actual investments at the Technion are after deduction of estimated commitments pending and investments in equipment from the development budget.
[4] Government participation includes allocations not from the State budget.

Investments in construction in the institutions of higher education have been steadily declining in the past decade: in 1986/87 they were only about 30% of their value in 1973/74. While at the beginning of the 70's the development budget was about 25% of the total higher education budget, in 1986/87 it was only about 6%.

In this same period the PGC's participation in development budgets of the institutions of higher education diminished even more rapidly. In 1986/87 it was 11% of what it was in 1973/74: at that time PGC participation in development budgets was about 16% of total PGC participation in higher education budgets, but in 1986/87 the percentage was less than 2%. In 1973/74 PGC participation was about 50% of total investments but in 1986/87 it was less than 15%, not including payments for previous commitments.

During this period changes have occurred in the apportionment of the development budget between the different institutions, both in total investments and PGC participation. The following table presents data on the development budget of the universities from 1973/74 to 1986/87 (including data on the Open University but not on the non-university institutions of higher education).

The Development Budget of the Universities 1973/74 - 1986/87
(NIS Thousands)

	At Current Prices		At 1986/87 Prices [1]	
	Investments	PGC Allocation	Investments	PGC Allocation
1973/74	26.0	13.0	144,900	72,070
1974/75	31.3	14.1	127,750	57,500
1975/76	28.5	8.7	92,580	28,400
1976/77	31.9	12.8	80,830	32,560
1977/78	50.7	16.7	82,310	27,670
1978/79	75.7	17.0	71,590	15,960
1979/80	161.4	44.5	68,690	18,900
1980/81	381.0	84.3	68,760	15,200
1981/82	734.6	180.7	62,500	15,370
1982/83	1,724.5	337.1	65,410	12,770
1983/84	5,583.0	1,358.3	52,820	12,850
1984/85	25,074.0	4,992.0	54,050	10,760
1985/86	40,676.0	9,406.6	51,290	11,860
1986/87	44,000.0	7,971.0	44,000	7,971

[1] 1986/87 prices based on the Construction Price Input Index.

5
ALLOCATIONS TO ENCOURAGE RESEARCH AND EXCELLENCE

The universities are engaged in both teaching and research. University teaching not accompanied by research cannot maintain a proper academic level for any length of time.

About 30% of all research and development in Israel (including defense) and 45% of the civilian research and development in the natural sciences, medicine, agriculture and engineering takes place in the universities. Most research in the humanities and social sciences is conducted in the universities, as is virtually all of the basic research, which is financed from the ordinary budget and external research funds (amounting to tens of millions of dollars).

Almost all the technological advances in industry and defense in Israel were achieved due to basic research conducted in the institutions of higher education ten or even twenty years earlier. Foundations for science and technology in the 21st century must be laid in the universities now. Every effort should be made to establish a system of funds for financing basic research in the universities. The existing funds - the bi-national funds (with the United States and with Germany) and the Fund for Basic Research - should be expanded.

5.1
Yigal Allon Fellowships for Young Researchers

These fellowships are intended for outstanding young researchers. They enable the universities to provide the fellows with initial full-time appointments as "lecturer" or "senior lecturer", thus ensuring the absorption of the fellows into the higher education system.

Approximately 20 three-year fellowships are awarded each year, each equivalent to the average salary of a lecturer or senior lecturer. Competition for the fellowships is on a personal and non-institutional basis. The university undertakes to employ the fellow and include his salary in its ordinary budget at the end of the three years of the fellowship.

27 fellowships were awarded in 1986/87, the ninth year in which fellowships for outstanding young researchers were awarded: 6 in the humanities, 6 in the social sciences, 9 in the exact sciences and 6 in the life sciences. NIS 1.87 million were transferred to the universities to cover the expenses of 63 fellows in three different three-year cycles.

5.2
Allocations for Scientific Equipment

In 1986/87 the PGC continued, for the ninth year, to grant special allocations for the purchase of scientific research equipment. The allocations are intended to encourage excellence and maintenance of the high scientific level of research teams and, in particular, for research teams developing new or vital fields of research and utilizing advanced experimental methods. This year allocations were also made for the purchase of equipment for the development of advanced fields of teaching.

Allocations are intended for the purchase of new equipment costing at least $25,000 per item or for a particular set of equipment. Requests are presented by the universities according to the requirements of their research teams and their long-range needs. The PGC's participation is about 50% of the cost of each item. Special committees for each scientific field recommend to the PGC the apportionment of allocations.

103 requests for allocations for the purchase of scientific equipment were presented to the PGC in 1986/87, of which 36 (35%) were approved. $1.9 million were allocated for the purchase of scientific equipment costing about $4 million.

5.3
The Fund for Basic Research

The Fund awards grants for basic research to researchers in universities. The Fund is financed by the PGC but is administered by the Israel Academy of Sciences and Humanities. The Fund has a council and an administration, on which sit three representatives of the PGC.

466 applications for new grants were made in 1986/87, of which 104 (22%) were approved (compared with 466 applications, of which 20% were approved, in the previous year): 33 in the exact sciences, 41 in the life sciences, and 30 in the humanities and social sciences. NIS 1,698,700 were allocated as new research grants, averaging NIS 16,334 per grant (NIS 16,394 in the exact sciences, NIS 20,841 in the life sciences, and NIS 10,107 in the humanities and social sciences).

A further 149 grants were awarded for continuing research projects (78 for projects in the second year and 71 third year grants). NIS 1,221,000 were awarded as second-year grants and NIS 1,082,730 as third-year grants. 32 continuing research grants were awarded in the humanities and social sciences, 64 in the life sciences, and 53 in the exact

sciences. Approximately 70 senior researchers served, voluntarily, on selection committees for the grants.

Total grants from the Fund for Basic Research amounted to NIS 4,084,926, of which about 44% were for new projects and 56% for continuing projects.

In 1986/87, as in recent years, the PGC increased the Fund's budget. The budget has grown from $600,000 in 1979/80 to $3 million in 1986/87.

Grants from the Fund for Basic Research - 1986/87
(In NIS)

	New Projects	Continuing Projects		Total
		Second Year	Third Year	
Total	1,781,196	1,221,000	1,082,730	4,084,926
Exact Sciences	563,496	435,750	411,000	1,410,246
Life Sciences	846,000	591,000	585,150	2,022,150
Permanent Scientif. Equipment	37,500	-	-	37,500
Humanities and Social Sciences	334,200	194,250	86,580	615,030

5.4
Research Fund for Electronics, Computers and Communication

This fund was established in 1986/87 in order to finance research in the fields of electronics, computers and communication in the universities. The Israel Academy of Sciences and Humanities administers the fund.

The PGC allocated NIS 970,000 to the fund in 1986/87.

5.5
The Joint Atomic Energy Commission - PGC Research Fund

The purpose of this fund is to encourage cooperation between the AEC and the institutions of higher education and to expand the scientific and technological infrastructure available to the Commission.

This fund operates through a joint PGC-AEC administration and a selection committee. Research projects must be in the field of activity of the AEC and must be carried out in institutions of higher education by researchers who have close contact with the AEC.

The PGC's participation in this fund in 1986/87 amounted to NIS 583,000.

5.6
The Joint PGC - Ministry of Defense Research Fund

The purposes of this fund are:

* expansion of the scientific - technological infrastructure in the universities available to the defense system;
* utilization of the scientific potential of the institutions of higher education, where the advancement of the researcher and his institution and the needs of security coincide;
* the fostering and advancement of young researchers or researchers returning from abroad in relevant subjects in the universities, or their retraining for employment in high-tech industries.

A joint administration operates the fund. Research projects are chosen by professional committees and are carried out by researchers in the universities.

The PGC's participation in this fund in 1986/87 amounted to NIS 690,000.

5.7
The Association to Encourage Technological Education in Electronics and Computers

This association was established in 1983/84 in order to encourage young researchers in the fields of electronics and computers to join university staffs. The electronics industry, the IBM Corporation, the PGC, and the Ministry of Finance are partners to this fund.

Electronics firms contribute annually to the association amounts proportional to the number of electronics and computer engineers that they employ.

In 1986/87 the association financed its activities from budgetary surpluses left over from previous years. The PGC did not, therefore, make any allocation to the association this year.

5.8
The United States - Israel Education Foundation

This fund, also known as the "Fulbright Foundation", is a bi-national fund based on an agreement between the two governments signed in 1956. Each year the foundation finances visits, usually lasting from one semester to one year, to Israeli universities by US lecturers, researchers and students and also awards scholarships to Israeli students and post-doctoral researchers who wish to study in the US.

The foundation's annual budget is financed for the most part by the US Government, both by an annual allocation and from the proceeds of an endowment fund of $5 million that was set up in 1985. The endowment fund enabled the foundation to increase its budget from $700,000 in 1985 to $1,200,000 in 1987.

Since 1967 the Government of Israel participates in the foundation through the Ministry for Foreign Affairs and the PGC. The PGC's participation in the foundation in 1986/87 was $15,000. The Ministry for Foreign Affairs's participation was $35,000.

5.9
Research Increments

Research increments were initiated in 1983/84 in order to expand the scope of university research and to encourage researchers to obtain research grants from external sources. The PGC participates in the financing of research increments "B" and "C". Research increments are as follows:

Research Increments "A" - paid to the chief researcher from the research grant.

The number of researchers benefiting from this type of supplement was in 1983/84 - 298
1984/85 - 332
1985/86 - 313
1986/87 - 283

In 1986/87 NIS 3.3 million were disbursed as this type of research increment.

Research Increments "B" - paid to researchers who have received research grants but do not benefit from research supplements paid by the fund that awarded the grant.

The number of researchers benefiting from this type of supplement was in 1983/84 - 587
1984/85 - 587
1985/86 - 713
1986/87 - 837

In 1986/87 NIS 5.7 million were disbursed as this type of research increment.

Research Increments "C" - paid to academic staff members who are not employed outside of their institutions and who devote most of their time to their work in the institution.

The number of researchers benefiting from this type of supplement was in 1983/84 - 2,509
1984/85 - 2,491
1985/86 - 2,458
1986/87 - 2,517

In 1986/87 NIS 6.5 million were disbursed as this type of research increment.

6
ALLOCATIONS TO ENCOURAGE INTER-UNIVERSITY COOPERATION

One of the central tasks of the PGC is to encourage coordination and cooperation between the institutions of higher education. Efficiency in the system and the promotion of subjects particularly affected by budgetary cuts are important in the long-range view of the higher education system.

6.1
Computers

The PGC is active in the development of university computing centers and allocates funds to them, within the framework of the multi-year acquisition program recommended by the PGC's sub-committee for computers. In 1986/87 the PGC allocated approximately NIS 2.5 million to university computing centers.

The Inter-University Computing Center (IUCC), initiated by the PGC at the end of 1982/83, promotes the inter-university communication network, joint purchasing of computer equipment, and other issues concerning university computers.

In 1986/87 all the universities in Israel were connected to the inter-university communication network, other research institutions joined the network, and the network's scope of activity expanded. The IBM Corporation again financed the operating expenses of the network. The network is part of the European Academic Research Network (EARN) and, through it, is connected to the BITNET, CSNET and ARPANET networks in the US. Israeli universities are now connected to more than 1,500 universities and scientific institutes all over the world.

The activities of the IUCC in 1986/87 included:

- it obtained purchasing agreements with suppliers of computer equipment and soft-ware, thus saving resources by utilizing joint purchasing power;
- preparations were begun for the forthcoming cessation of the IBM Corporation's financial support of the inter-university communication network, and the establishment of a national academic communications network;
- the institutions prepared coordinated reports reviewing their computer inventories and development plans for university computers;

* Tel-Aviv University put its excess computing power at the disposal of other universities, enabling them to postpone their acquisition of additional computing power.

The PGC's allocation to the IUCC in 1986/87 was approximately NIS 236,000.

The forum of university computing center directors convened monthly in 1986/87. The forum discusses coordination between computing centers and makes recommendations to the IUCC administration.

6.2
University Libraries

The directors of the university libraries meet several times a year to discuss the PGC allocations for the purchase of books and periodicals and the strengthening of cooperation between libraries, with a view to greater economy and efficiency.

Each year the PGC makes a special allocation for the purchase of books and periodicals by university libraries. Since the allocation is intended to encourage universities to purchase more books and periodicals, its amount depends upon the sum each institution devoted from its own resources to this purpose in the previous year.

The PGC's special allocation in 1986/87 was NIS 3.7 million.

The PGC also participates in the Union List of Serials in Israel, which is prepared by librarians of the Hebrew University of Jerusalem, and in the inter-library loan project. The PGC's allocation for these projects in 1986/87 was NIS 160,000.

The inter-university library network began to operate in 1983/84. This network connects the library computers and is based on the Hebrew University's "Aleph" program, which was adopted by the other universities. The "Aleph" program allows for cataloging, search and lending in and between each of the university libraries.

The Steering Committee for the Inter-University Library Network continued its activities in 1986/87. The committee directs the development policy of the "Aleph" program regarding computer soft-ware and hard-ware and the services provided by the "Aleph" staff to university libraries.

In 1986/87 the PGC allocated NIS 658,000 for the purchase of VAX computers and soft-ware for the libraries and for the continued development of the "Aleph" program.

6.3
The Institute for Desert Research in Sede Boker

In order to encourage the Institute's development as a national center for desert research, the PGC appointed an inter-university academic committee to follow its activities. The committee's functions are to initiate and encourage cooperation between the Institute, which is part of Ben-Gurion University of the Negev, and the institutions of higher education.

Cooperation is in the following areas:

* research projects that are conducted jointly by researchers from the Institute and from other universities;
* national and international meetings on desert research are held at the Institute's International Center for Desert Research;
* providing courses for students of other universities.

The PGC contributes to the Institute's budget through its direct allocation to the ordinary budget of Ben-Gurion University of the Negev.

6.4
The Inter-University Institute in Eilat

In recent years the PGC made special allocations to promote oceanography, directed primarily to the Marine Biology Laboratory in Eilat, which is part of the Hebrew University of Jerusalem.

In 1983/84, in order to encourage inter-university cooperation in the operation of the laboratory, the laboratory became an inter-university institute. The institute is managed by an administrative committee appointed by the Chairman of the PGC after consultation with the Rector of the Hebrew University. University scientists serve as committee members. The committee's function is to determine the institute's scientific programs, priorities for the institute's work, and development trends. In addition, the committee determines the curriculum in oceanography, agendas for conferences, employment procedures for scientists at the institute, and possibilities for cooperation between the institute and universities and research institutes in Israel and abroad.

The PGC transfers the institute's budget - as a closed budget - to the Hebrew University in Jerusalem, which is responsible for the institute's operation.

The PGC's allocation to the Inter-University Institute in Eilat in 1986/87 was NIS 910,000.

6.5
The Israeli Academic Center in Cairo

The Israeli Academic Center in Cairo was established in 1981/82 by the institutions of higher education and the Israeli Oriental Society on behalf of the Israel Academy of Sciences and Humanities following a cultural agreement between Israel and Egypt signed in May 1980.

A council and an administration direct the activities of the Center. The PGC finances the Center, which is administered by the Israel Academy of Sciences and Humanities.

Staff and students from Israeli universities and research institutes visit the Center. The areas which are of interest are the humanities and social sciences, technology, medicine and agriculture. The researchers utilize the facilities offered by the Center for their work.

Visitors from Israel organize monthly seminars at the Center, accompanied by video films of the Open University in Israel, which are attended by many Egyptian lecturers and students. Egyptian teachers and lecturers also visit the Center to use the library or to receive information, particularly in the field of Judaica.

In 1986/87 progress was made in the computerization of the Center's library and catalog of manuscripts. The Center published an issue of its bulletin, which appears partially in Arabic, devoted to the higher education system in Israel. Classification, preparation, and cataloging of the Jewish heritage collection in Cairo continued.

The PGC allocation to the Center in 1986/87 was approximately NIS 310,000.

6.6
Natural Science Collections

From 1984/85 to 1986/87 the PGC made a special allocation to the Israel Academy of Sciences and Humanities for the preservation of existing zoological, botanical, geological, and paleontological collections, located primarily in the Hebrew University of Jerusalem and Tel-Aviv University, and to inter-institution cooperation in this area. Since 1984/85 the Academy is responsible for this subject and for this purpose it established an "Association for National Collections in the Natural Sciences", which is a continuation of a PGC sub-committee that was active until March 1984.

In 1986/87 the registration and computerization of national collections continued and additional collections were acquired from researchers.

7
AID TO STUDENTS

7.1
Perach (Tutorial Project)

The tutorial project is a joint project of the Ministry of Education and Culture, the PGC, the universities and the National Union of Students. Students volunteering to devote four hours a week to acting as tutors to school pupils are eligible for scholarships equivalent to $470.

In 1986/87 10,925 students served as tutors, including tutors who served only part of the year. The number of students serving as tutors from 1976/77 - 1986/87 appears below.

Perach Tutors in Universities 1976/77 - 1986/87

	76/77	78/79	80/81	82/83	84/85	85/86	86/87
Total	880	2,720	5,858	8,070	12,072	13,213	10,925
Hebrew Univ.	250	430	855	1,250	1,914	1,924	1,751
Faculty of Agriculture*	50	40	289	450	702	712	828
Technion-IIT	-	220	467	900	2,004	2,281	1,768
Tel-Aviv Univ.	100	250	491	900	1,737	2,293	1,419
Bar-Ilan Univ.	130	390	925	1,300	1,599	1,585	1,161
Univ. of Haifa	-	400	1,002	1,300	1,822	2,000	1,775
Ben-Gurion U.	300	950	1,709	1,900	2,234	2,358	2,173
Weizmann Inst. of Science	50	40	120	70	60	60	50

* The Faculty of Agriculture, which, while part of the Hebrew University of Jerusalem, is located in Rehovot is considered separately from the Hebrew University for the purposes of Perach.

In 1986/87 Perach tutors operated eight tutorial centers in seven universities and one regional college. They were active in 396 schools located in 102 different communities, as set out below:

Perach Activity - 1986/87

	Coordi-nators	Schools	Commu-nities	Tutors
Total	277	396	102	10,925
Hebrew University - Total	60	80	13	2,579
Faculty of Agriculture	(18)	(30)	(10)	(822)
Technion-IIT	47	61	18	1,768
Tel-Aviv University	48	51	9	1,419
Bar-Ilan University	31	55	19	1,161
University of Haifa	43	80	29	1,775
Ben-Gurion University	47	64	13	2,173
Weizmann Inst. of Science	1	5	1	50

Source: Perach Administration

The main expenditure of Perach is on scholarships. The PGC finances 9,000 scholarships, about 80% of the total number. The remainder are financed by the universities, the Ministry of Education and Culture and other sources.

In 1986/87 the PGC's allocation to Perach was approximately NIS 6 million.

The administration of Perach is located in the Weizmann Institute of Science, which provides assistance for the project. A council, appointed by the Minister of Education and Culture, directs the project. The Ministry of Education and Culture also covers Perach's administrative expenses and selects the schools and pupils participating in the project.

Perach activities in 1986/87 included the following:

* Perach scholarships were set in dollars, as a percentage of tuition fees;
* For the first time the number of students serving as tutors decreased;
* Activities intended to enrich tutoring sessions and add variety were expanded:

* Connections with schools and the school inspectorate were strengthened, as were connections with local authorities;
* Procedures for the registration and placement of tutors were simplified;
* The Perach administration acquired a computer for the computerization of the system;
* An internal auditor was employed to improve the financial system.

7.2
Student Loans

The Students Loan Fund in the institutions of higher education, in which commercial banks were partners, ceased to function in 1984/85. Since 1985/86 loans to students have been financed from the PGC budget. Loans are approved by the department for tuition fees and student loans in the Ministry of Education and Culture and are implemented by commercial banks. In 1986/87 additional loans were made available to all students through the "Idud" company, and 1,500 of these were taken out.

The PGC has adopted the criteria for the eligibility for loans that were recommended by the "Katzav Committee". These include: the economic situation of the student's parents, the student's income, the number of family members in the student's home, army service, marital status, and place of residence (i.e., if in a development area).

In 1986/87 approximately 5,960 students applied for loans, of whom 5,490 were found eligible for loans. 1,473 loans were in fact implemented, as were 789 standing loans and 646 grants.

In 1986/87 the PGC's allocation for loans to students was approximately NIS 1,263,000.

8
OTHER ALLOCATIONS

8.1
Foreign Students

The Steering Committee for Foreign Students is composed of representatives of the universities and the Jewish Agency and is headed by a member of the PGC.

The functions of the committee are:
a. to determine policy and guidelines for operating programs aimed at increasing the number of Jewish students in Israeli universities;
b. to allocate the budget for these programs.

The committee's activities include the following:
* **scholarships for students** - Scholarships for undergraduate students and students in special programs are based on the student's socio-economic background; scholarships for graduate students are based on academic excellence.

* **recruitment of students abroad** - A representative of the committee in the US coordinates activities in North America. In recent years greater efforts are being made to recruit students from South Africa, Latin America and Europe.

* **academic development in the universities** - The choice of courses offered to foreign students is being expanded in order to suit the courses to the plans and needs of the students.

* **social and cultural activities** - These are intended to enable the students to become acquainted with Israeli people, the land, the State and society.

The budget of the Steering Committee in 1986/87 was $1,500,000, all of it from the Jewish Agency.

In 1986/87 1,567 foreign students studied in undergraduate degree programs or special programs (either for one year or one semester). 199 foreign students studied for advanced degrees. Since the Steering Committee was established in 1982/83 there has been an average increase of 12.5% in the number of foreign students. (See the following tables).

Undergraduate Students from North America* in One-Year or One-Semester Programs

	1982/83	1983/84	1984/85	1985/86	1986/87
Total	989	1,201	1,159	1,280	1,434
Hebrew University	581	685	608	730	820
Tel-Aviv University	247	312	306	329	375
Bar-Ilan University	80	80	83	63	93
University of Haifa	81	124	108	105	105
Ben-Gurion Univ. & Negev Reg. Coll.	-	-	54	53	41

* In 1986/87 there were 133 foreign students from other countries.

Source: The Steering Committee for Foreign Students

Graduate Students Receiving Scholarships from the Steering Committee for Foreign Students

	1985/86		1986/87	
	2nd Degree	Ph.D.	2nd Degree	Ph.D.
Total	110	30	144	45
Hebrew University*	72	11	85	13
Technion - IIT	24	-	30	1
Tel-Aviv University	6	4	10	5
Bar-Ilan University	1	1	1	2
Ben-Gurion University	1	3	2	4
University of Haifa	1	-	10	-
Weizmann Institute**	5	11	6	20

* Each year the Hebrew University awards an additional 10 scholarships for doctoral students.

** Each year the Weizmann Institute awards an additional 44 scholarships for master's degree students and 50 for doctoral students.

Source: The Steering Committee for Foreign Students

8.2
Regional Colleges

The regional colleges, which are centers for cultural and instructional activity in areas far from the center of the country, provide academic courses of study for which universities are responsible academically. The academic responsibility is extended to these courses of study in order to make higher education more accessible to broader segments of the population and is expressed in the following ways:

* the teaching staff is part of the university staff;
* the program of study is determined by the university;
* requirements for admission are determined by the university;
* study requirements are similar to those of the university in the same field;
* degrees are awarded by the university after students complete their studies there.

Academic courses in regional colleges enable residents of areas that are distant from university campuses to accumulate credit toward an academic degree. The first two years of academic study may be undertaken in a regional college, while the third and final year of study leading to a bachelor's degree must be completed at the main university campus.

The Ministry of Education and Culture, local authorities and other sources finance the operating expenses of the colleges, while the PGC participates in the financing of the academic centers' expenses and the overhead expenses of the academic courses. The PGC's allocation is transferred to the universities concerned, whereas other financing is transferred directly to the colleges.

In 1986/87 the PGC doubled its allocation to academic courses in regional colleges, raising it to NIS 152,000. The apportionment of this allocation is decided upon by the Council for Higher Education's sub-committee for regional colleges.

The PGC's allocation is intended to support the following:

a. assistance with the colleges' overhead and administrative expenses and the salary of the academic coordinator;
b. the encouragement of university appointments for local academic staff members, who will contribute to the development of academic courses in regional colleges, over and above their instructional commitments, such as in counselling of students, development of libraries, etc.

A list of the regional colleges where academic courses were held in 1986/87 can be found on page 19.

8.3
Pre-Academic Preparatory Courses

The pre-academic preparatory courses have as their aim to give a "second chance" to young people who lack the matriculation certificate or whose secondary school grades were low, by preparing them for university admission. It is hoped that a larger number of students from the lower socio-economic strata of society will thus be admitted to university studies. Students in the pre-academic preparatory courses complete their matriculation examinations and are otherwise assisted in preparing themselves for academic study.

In 1986/87 preparatory courses were held in universities (the Hebrew University of Jerusalem, the Technion, Tel-Aviv University, the University of Haifa, Ben-Gurion University of the Negev, and Bar-Ilan University), in regional colleges (Tel-Hai, Jordan Valley, Ohel Sarah, and S. Sapir - the Negev) and at teacher training institutions. In addition, a preparatory course was held in the Sharon region, combining living and working in a kibbutz with participation in the course. Other preparatory courses for the completion of secondary education are held in a few educational institutions.

The "Association for the Advancement of Education" which is connected with the Ministry of Education and Culture, is responsible for operation of the courses. The Association maintains regular contact with the PGC, the Ministry of Education and Culture, and the Ministry of Defense.

The PGC covers tuition costs of students from disadvantaged socio-economic backgrounds who are considered "worthy of advancement", while the Ministry of Education and Culture and the Ministry of Defense cover their living expenses.

The PGC's allocation in 1986/87 was NIS 2,554,500.

The following table shows the number of students in the pre-academic preparatory courses from 1984/85 - 1986/87.

Students in Pre-Academic Preparatory Courses

	Total Students	Considered "Worthy of Advancement"
1984/85 - Total	3,483	2,257 - 65%
At the universities	2,204	1,070 - 49%
At the colleges	1,279	1,187 - 93%
1985/86 - Total	3,856	2,456 - 64%
At the universities	2,242	969 - 43%
At the colleges	1,614	1,487 - 92%
1986/87 - Total	4,511	3,205 - 71%
At the universities (Total)	2,414	1,264 - 52%
Hebrew University	451	294
Technion-IIT	713	151
Tel-Aviv University	406	267
University of Haifa	524	360
Bar-Ilan University	69	64
Ben-Gurion University	251	128
At the colleges and teacher training institutions (Total)	2,097	1,941 - 93%
Tel-Hai	178	160
Jordan Valley	237	210
Ohel Sarah	336	309
S. Sapir (Negev)	591	545
Beit Berl	168	159
Oranim	52	52
Givat Washington	21	15
Wingate	65	56
Lipshitz	38	36
Achva	76	76
Kaye	13	7
David Yellin	52	48
Western Galilee	60	60
College of Administration	185	185
Kanot	25	23

Source: The Association for the Advancement of Education

Data refer to the beginning of each academic year.
Students in the Sharon pre-academic course are included with the students at the Tel-Aviv University course.

8.4
Micro-Computer Classes

1986/87 was the second year in which the PGC made a special allocation to promote the establishment of micro-computer classes in the universities. These classes are intended for instruction in all subjects, including the humanities.

The PGC's allocation was NIS 650,000 which, together with supplementary financing by the universities, enabled the universities to acquire 184 computers for 16 classes.

8.5
The Special Program in Electronics at Tel-Aviv University

This program for the retraining of practical (non-academic) engineers as electronics engineers opened in 1985/86 with approximately 100 students. A surplus of practical engineers together with a shortage of electronics engineers, which it was feared might impede the development of Israel's electronics industry, was the stimulus that led to the opening of the course. In 1986/87 there were 180 students in the program.

The PGC allocated NIS 3,150,000 to the program in 1986/87, as a special transfer to Tel-Aviv University according to an agreement with the Ministry of Finance.

8.6
The Advancement of Peripheral Hospitals

The PGC continued its discussions with officials of the Ministry of Health, the directors of peripheral hospitals (i.e., distant from schools of medicine), and the deans of the schools of medicine in order to strengthen the connections between the peripheral hospitals and the schools of medicine. The PGC covers the cost of approximately 10 academic appointments in the schools of medicine for doctors from peripheral hospitals. In order to qualify for financing, the schools of medicine must show that they need the instructional capabilities of doctors from the peripheral hospitals and that the level of equipment found in the departments of these hospitals that will serve as teaching departments will be raised. The PGC's allocation in 1986/87 was NIS 250,000, which was the total cost of the project.

9
THE PGC AND THE GOVERNMENT AND THE KNESSET

9.1
The Government and Government Ministries

In November and December 1986 the Government devoted two sessions to a discussion of the state of the higher education system and basic research in the universities. The Chairman of the PGC and the President of the Israel Academy of Sciences and Humanities took part in the discussion. The PGC's long-range plan for the development of the higher education system and the encouragement of research in the universities were presented during the discussion, but there was no formal summary.

A ministerial committee on tuition fees, headed by the Deputy Prime Minister and Minister of Education and Culture, and with the participation of the Minister of Science and Development, student representatives, representatives of the universities, a representative of the Ministry of Finance and an observer from the PGC, held discussions on several proposals that had been presented to it, but did not reach any conclusions. The subject was returned to the Government which determined the level of tuition fees for 1987/88 (lower than the level in 1986/87) and decided to make a special allocation to the institutions of higher education to compensate them for the resulting loss in income. The Government also decided to establish a public committee to determine tuition fees in coming years.

During the year the Chairman of the PGC met with the Prime Minister and other ministers to discuss with them the problems facing higher education.

9.1.1 Ministry of Education and Culture

The Minister of Education and Culture, who is ex-officio Chairman of the Council for Higher Education, closely follows the work of the PGC.

The PGC administration maintains working contact with various departments of the Ministry of Education and Culture on such issues as the academic training of teaching personnel, academic courses in regional colleges, pre-academic preparatory courses, and the recognition of foreign academic degrees.

9.1.2 The Ministry of Finance

The PGC maintains close contact with the Minister of Finance, his Director-General, the Budget Department, the Accountant-General's Department, and the official in charge of wages. In 1986/87 discussions centered on the following:

* the long-term plan for the development of the higher education system;
* the budget of the higher education system;
* the examination of the erosion of academic staff wages.

9.1.3 The Ministry of Health

Discussions with the Minister of Health and officials of the Ministry centered on subjects common to the health and higher education systems:

* the academization of para-medical professions;
* the academic affiliation of peripheral hospitals to schools of medicine;
* the Ministry's request to consider the establishment of a school of pharmacy in Beer Sheva.

9.1.4 The Ministry of Economy and Planning

The Chairman and one member of the PGC serve as members of the "Council for National and Economic Planning". This Council was established as part of the Government's reorganization program in this field, and was requested to prepare for the Government - in coordination with others involved in planning in government, the economy and in higher education - recommendations for medium and long rage policy in various fields.

9.1.5 The Ministry of Science and Development

Regular contact was maintained with the Minister of Science and Development, the Director-General of the Ministry and the staff of the National Council for Research and Development. Research in the higher education system was discussed.

9.1.6 The Ministry of Justice

The Attorney-General advises the PGC on matters affecting the higher education system and the Council for Higher Education Law.
The PGC assisted the Ministry of Justice in preparing for the initiative to amend the Accountants Law. According to the new law all accountants will have to hold a bachelor's degree in one of a specified list of subjects.

9.1.7 The Ministry of Immigrants Absorption

Contact was maintained with the Minister of Immigrants Absorption on the subject of the absorption of immigrant scientists from the Soviet Union. The Chairman of the PGC joined an initiative taken by the Israel Academy of Sciences and Humanities in this matter.

The Ministry also deals with foreign students in the universities and the absorption of immigrants into the academic staffs of the universities.

9.1.8 The State Comptrollers Office

In 1986/87 the State Comptroller published a report on the financial situation of the universities in the years 1983-1984 and a report on the activity of the PGC. The PGC discussed the conclusions of the report and the administrations of the institutions of higher education were requested to present their observations on the report. The Chairman of the PGC prepared a summary document for the Comptroller.

9.2 The Knesset and its Committees

9.2.1 The Education and Culture Committee

The Committee occasionally discusses issues connected with the higher education system. Representatives of the PGC are invited to these meetings. In 1986/87 the Committee discussed the following: the situation of the higher education system; the financial plight of the Hebrew University of Jerusalem; changes in the matriculation examinations for secondary school pupils; and a plan to establish a bachelor's degree program with English as the language of instruction (this discussion was held jointly with the Immigration and Absorption Committee).

9.2.2 The Finance Committee

The Committee approved the higher education budget without discussion. It also held discussions on the subject of academic staff wages.

9.2.3 The Public Audit Committee

The Chairman of the PGC and representatives of the universities attended some meetings of the Committee, some of which were joint committee meetings with the Education and

Culture Committee. The Committee discussed the Comptroller's report on the universities and in particular the financial plight of the Hebrew University of Jerusalem and Tel-Aviv University. The Committee also held a discussion on the Comptroller's report on the PGC (it should be noted that the PGC's actions gained the support of the Committee).

The Joint Education and Culture - Public Audit Committee discussed the following subjects: the State Comptroller's report on the universities; the different types of sabbatical leave in the universities; the financial plight of the Hebrew University of Jerusalem and Tel-Aviv University; the activities of the PGC.

Appendix 1

Subjects Discussed at Meetings of the PGC in 1986/87*

1. The PGC's work program for 1986/87 - 1987/88 and implementation of the 1985/86 work program.
2. The higher education budget (updating for 1986/87, proposals for 1987/88 and long-term plans).
3. The financial situation of the universities.
4. Direct participation in 1986/87 ordinary budgets.
5. Guidelines for the preparation of the 1987/88 budget.
6. The budget proposal for 1987/88.
7. The distribution of resources according to indices for allocation and criteria for the measurement of output.
8. The balance sheets of the institutions for 1984/85.
9. Matching allocations for 1985/86.
10. Loans taken out by the institutions of higher education as of September 30, 1987.
11. Tuition fees in the institutions of higher education.
12. The terms of employment of the academic staff at Bezalel - Academy of Arts and Design, and the establishment of a model for terms of employment in institutions that are not universities.
13. Problems connected with the opening of the 1986/87 academic year.
14. Wage irregularities in the institutions of higher education.
15. The special allocation for the purchase of books and periodicals.
16. A proposal for a new method of apportioning the PGC's allocation for the purchase of books and periodicals.
17. The allocation for the purchase of scientific equipment in 1986/87.
18. The allocation for instructional micro-computer classes.
19. The "Aleph" program for the inter-university library network.
20. Scientific collections in the natural sciences.
21. The activities in Israel of foreign institutions of higher education.
22. The State Comptroller's report on the institutions of higher education.
23. Construction plans in the universities.
24. The future of undergraduate studies in the institutions of higher education.
25. The proposal made by the Israel Academy of Sciences and Humanities to establish a national depository of scientific and technological instruments.
26. Yigal Allon Fellowships for 1987/88.
27. The study of biotechnology in the universities.

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* Not according to any particular order. Budgetary matters were discussed at most meetings.

28. Data from the survey of personnel in the universities - 1984/85.
29. Research increments.
30. Earmarked allocations for equipment and research.
31. The Israeli Academic Center in Cairo.
32. The allocation of computers for the use of doctoral students in the humanities and social sciences.
33. The review of the university schools of education.
34. Rules for revoking the accreditation of institutions of higher education.
35. The Fund for Basic Research.
36. The Inter-University Institute in Eilat.
37. The report of the Committee for Regional Colleges.
38. The report of the team appointed to oversee Jerusalem College of Technology.
39. Policy for the approval of new study programs at Tel-Aviv University and the Hebrew University of Jerusalem.
40. The PGC's administrative budget for 1987/88.
41. The study of pharmacy in the universities.
42. Promoting doctoral programs in the humanities.
43. The report of the committee appointed to examine the request of the Hebrew University of Jerusalem to open a bachelor's degree program in the history of Christianity.
44. A joint Ben-Gurion University of the Negev - Boston University bachelor's degree program in English.
45. The report of the committee appointed to examine the request of Ben-Gurion University of the Negev to authorize it to award the master's degree in Jewish Thought.
46. The joint University of Haifa - Technion study program in occupational therapy.

Appendix 2

Subjects Discussed at Meetings of the Council for Higher Education in 1986/87

1. The report of the committee appointed to examine the request of Ben-Gurion University of the Negev to authorize it to award the master's degree in philosophy.

2. The report of the committee appointed to examine the requirements of the State for academically qualified personnel in architecture and physical planning.

3. The report of the committee appointed to examine the request of the University of Haifa to open a master's degree program in Hebrew language.

4. The report of the committee appointed to examine the request of the University of Haifa to open a Ph.D. program in the history of the Jewish People.

5. The academization of teacher training institutions.

6. The report of the committee appointed to oversee the programs for kindergarten, elementary school and special education teachers at Beit Berl Teachers Training College.

7. The report of the committee appointed to oversee the David Yellin Teachers College prior to its accreditation and authorization to award the "Bachelor of Education" degree in programs for kindergarten and elementary school teachers.

8. The report of the committee appointed to examine the request of the Hebrew University of Jerusalem to open a bachelor's degree program in the history of Christianity.

9. Rules for revoking the accreditation of an institution of higher education.

10. The appointment of professors in institutions of higher education that are not universities but are authorized to award the "College Professor" title.

11. The report of the committee appointed to examine the request of Ben-Gurion University of the Negev to authorize it to award the master's degree in Jewish Thought.

Appendix 3

Fields of Study in the Institutions of Higher Education

	Humanities	Social Sci.	Law	Arts	Social Work	Teacher Train.	Math., Nat. Sci.	Eng., Technology	Agricult.	Medicine	Dentistry	Para-Med. Profs.
Hebrew University	+	+	+	+	+	+	+		+	+	+	+
Technion-IIT		+				+	+	+	+	+		
Tel-Aviv University	+	+	+	+	+	+	+	+		+	+	+
Bar-Ilan University	+	+	+	+	+	+	+					
University of Haifa	+	+		+	+	+	+					
Ben-Gurion University	+	+			+	+	+	+		+		+
Weizmann Inst. Science							+					
Everyman's (Open) Univ.	+	+					+					
Bezalel Academy Arts				+								
Jerusalem Acad. Music				+		+						
Jerusalem Coll. Technol.						+		+				
Shenkar - Text. & Fash.				+				+				
Ruppin Institute		+										
Coll. of Administration		+										
Teacher Training Colleges						+						

Appendix 4

Students in Universities - 1969/70 - 1986/87

	1969/70	1979/80	1984/85	1985/86	1986/87
Total	36,239	57,500	65,050	66,160	67,160
Hebrew University of Jerusalem	12,960	14,770	15,785	16,160	16,870
Technion-IIT	6,100	7,940	8,460	8,920	9,090
Tel-Aviv University	8,250	15,130	19,020	19,390	19,400
Bar-Ilan University	4,356	8,670	9,780	9,640	9,480
University of Haifa	2,839	6,190	6,375	6,420	6,550
Ben-Gurion University of the Negev	1,315	4,300	5,130	5,100	5,200
Weizmann Institute of Science	419	500	500	530	570
Percentages	100.0	100.0	100.0	100.0	100.0
Hebrew University of Jerusalem	35.8	25.7	24.3	24.4	25.1
Technion-IIT	16.8	13.8	13.0	13.5	13.5
Tel-Aviv University	22.8	26.3	29.2	29.3	28.9
Bar-Ilan University	12.0	15.1	15.0	14.6	14.1
University of Haifa	7.8	10.7	9.8	9.7	9.8
Ben-Gurion University of the Negev	3.6	7.5	7.9	7.7	7.7
Weizmann Institute of Science	1.2	0.9	0.8	0.8	0.9

Source: Central Bureau of Statistics

Appendix 5

Students in Non-University Institutions of Higher Education - 1983/84 - 1986/87

	1983/84	1984/85	1985/86	1986/87
Total	1,621	1,848	1,909	1,879
Bezalel - Academy of Arts and Design, Jerusalem	616	633	628	601
Jerusalem Rubin Academy of Music and Dance	305	392	363	371
Jerusalem College of Technology	215	280	360	360
Shenkar -College of Textile Technology and Fashion	308	324	342	331
Ruppin Institute (academic course only)*	177	219	216	216

* This is a two-year course

Source: Central Bureau of Statistics

Appendix 6

I Students in Universities by Level of Study - 1986/87

	Total	Bach. Degree	Mast. Degree	Ph.D.	Certi-ficate	Special Program
Total	67,160	45,480	13,660	3,410	950	3,660
Hebrew University	16,870	9,850	4,000	1,320	200	1,500
Technion-IIT	9,090	6,430	1,820	400	60	380
Tel-Aviv Univ.	19,400	13,000	4,700	800	300	600
Bar-Ilan Univ.	9,480	6,500	1,500	330	150	1,000
Univ. of Haifa	6,550	5,440	790	50	120	150
Ben-Gurion Univ.	5,200	4,260	630	160	120	30
Weizmann Inst. of Science	570	-	220	350	-	-
Percentages	100.0	100.0	100.0	100.0	100.0	100.0
Hebrew University	25.1	21.6	29.3	38.7	21.1	41.0
Technion-IIT	13.5	14.1	13.3	11.7	6.3	10.4
Tel-Aviv Univ.	28.9	28.6	34.4	23.4	31.6	16.4
Bar-Ilan Univ.	14.1	14.3	11.0	9.7	15.8	27.3
Univ. of Haifa	9.8	12.0	5.8	1.5	12.6	4.1
Ben-Gurion Univ.	7.7	9.4	4.6	4.7	12.6	0.8
Weizmann Inst. of Science	0.9	-	1.6	10.3	-	-

Source: Central Bureau of Statistics

II Students in Universities by Field of Study*
1969/70 - 1986/87

	1969/70	1979/80	1984/85	1985/86	1986/87
Total	33,383	54,480	61,155	62,360	63,500
Humanities and Jewish Studies	10,815	16,715	18,094	18,859	18,426
Social Sciences	8,660	15,717	16,865	16,607	17,352
Law	1,774	2,061	2,599	2,463	2,317
Medicine	1,314	3,083	4,223	4,479	4,564
Natural Sciences and Mathematics	4,918	7,429	9,727	9,773	10,252
Agriculture	510	1,482	1,199	1,201	1,307
Engineering and Architecture	5,392	7,993	8,448	8,978	9,282
Percentages	100.0	100.0	100.0	100.0	100.0
Humanities and Jewish Studies	32.4	30.7	29.6	30.2	29.0
Social Sciences	26.0	28.8	27.6	26.6	27.3
Law	5.3	3.8	4.2	4.0	3.7
Medicine	3.9	5.7	6.9	7.2	7.2
Natural Sciences and Mathematics	14.7	13.6	15.9	15.7	16.1
Agriculture	1.5	2.7	2.0	1.9	2.1
Engineering and Architecture	16.2	14.7	13.8	14.4	14.6

* Does not include students in special programs.
Source: Central Bureau of Statistics

Appendix 7

Recipients of Degrees from Universities - 1969/70 - 1985/86

	1969/70	1979/80	1984/85	1985/86			
				Total	Bach. Deg.	Mast. Deg.	Ph.D.	Certificate
Total	5,566	9,371	11,218	12,050	8,919	2,200	371	560*
Hebrew Univ.	2,622	2,396	3,136	2,951	1,968	663	145	175
Technion-IIT	1,032	1,347	1,404	1,478	1,111	302	55	10
Tel-Aviv Univ.	1,203	2,452	3,272	3,369	2,461	701	95	112
Bar-Ilan Univ.	423	1,265	1,308	1,700	1,347	205	27	121
Univ. of Haifa	187	1,015	1,173	1,295	1,065	134	2	94
Ben-Gurion Univ.	23	775	812	1,163	967	141	7	48
Weizmann Inst.	76	121	113	94	-	54	40	-
Humanities & Jewish Studies	1,804	2,741	3,312	3,334	2,341	388	71	534
Social Sciences	978	2,808	2,879	3,474	2,779	647	38	10
Law	364	301	505	390	373	14	3	-
Medicine & Related Fields	179	459	822	954	495	443	16	-
Natural Sciences & Mathematics	1,219	1,342	1,816	1,943	1,346	397	184	16
Agriculture	151	231	399	327	242	71	14	-
Engineering & Architecture	871	1,489	1,485	1,628	1,343	240	45	-

* A further 376 certificates were awarded to recipients of degrees.

Source: Central Bureau of Statistics

Appendix 8

Recipients of Degrees From Non-University Institutions of Higher Education - 1982/83 - 1985/86

	1982/83	1983/84	1984/85	1985/86
Total	214	335	318	381
Bezalel - Academy of Arts and Design, Jerusalem	97	134	104	122
Jerusalem Rubin Academy of Music and Dance	39	44	37	82
Jerusalem College of Technology	30	19	65	38
Shenkar - College of Textile Technology and Fashion	18	86	62	83
Ruppin Insitute - academic course only	30	52	50	56

Source: Central Bureau of Statistics

Appendix 9

Active University Staffs*

I Annual Average - 1983/84, 1984/85, 1985/86 According to Budgetary Source (Full-Time Positions)

	All the Universities	Hebrew University	Technion-IIT	Tel-Aviv University	Bar-Ilan University	Univ. of Haifa	Ben-Gurion Univ.	Weizmann Inst. of Science
Total Staff								
1983/84	18,164.3	5,432.4	3,017.4	4,141.3	1,436.4	865.8	1,543.8	1,727.2
1984/85	17,606.1	5,358.8	2,978.8	3,978.0	1,418.3	829.2	1,321.7	1,721.3
1985/86	17,276.5	5,381.5	2,860.9	3,946.8	1,373.1	854.9	1,185.1	1,674.2
Total Staff - Ordinary Budget								
1983/84	14,771.0	4,012.3	2,400.5	3,524.9	1,321.7	806.7	1,366.4	1,338.5
1984/85	14,209.2	3,930.6	2,373.7	3,351.5	1,274.8	769.1	1,161.9	1,347.6
1985/86	13,781.7	3,843.4	2,256.0	3,236.6	1,251.9	775.5	1,078.0	1,340.3
Total Staff - From Other Budgetary Sources								
1983/84	3,393.3	1,420.1	616.9	616.4	114.7	59.1	177.4	388.7
1984/85	3,396.9	1,428.2	605.1	626.5	143.5	60.1	159.8	373.7
1985/86	3,494.8	1,538.1	604.9	710.2	121.2	79.4	107.1	333.9

* Only active staff employed on a monthly basis. (Does not include those on fellowships, pensioners, those employed on a daily or contractual basis, etc.)
Data on the staff of Ben-Gurion University of the Negev do not include the Research and Development Authority.

II Annual Average 1985/86 - From the Ordinary Budget
(Full-Time Positions)

	All the Universities	Hebrew University	Technion-IIT	Tel-Aviv University	Bar-Ilan University	Univ. of Haifa	Ben-Gurion Univ.	Weizmann Inst. of Science
Total Staff	13,781.7	3,843.4	2,256.0	3,236.6	1,251.9	775.5	1,078.0	1,340.3
Teaching & Research Staff - Total	6,524.2	1,795.8	1,080.1	1,805.1	613.9	421.8	489.9	317.6
Senior Academic Staff	3,703.1	1,033.2	493.2	880.9	417.5	283.8	290.1	304.4
Junior Academic Staff	1,065.1	344.2	202.6	232.7	145.5	45.9	94.2	-
Medical Doctors	87.6	-	31.0	56.6	-	-	-	-
Teachers	77.6	13.0	-	5.0	-	33.1	21.3	5.2
Teaching & Res. Assts.	1,087.4	348.9	189.0	483.8	10.4	44.1	11.2	-
External Teachers	490.1	56.5	164.3	144.6	40.5	11.1	73.1	-
Other Research & Teaching Staff	13.3	-	-	1.5	-	3.8	-	8.0
Technical Staff - Total	2,325.8	471.7	547.9	348.3	97.8	36.8	212.5	610.8
Administrative Staff - Total	4,931.7	1,575.9	628.0	1,083.2	540.2	316.9	375.6	411.9

III Annual Average 1985/86 - From Other Budgetary Sources
(Full-Time Positions)

	All the Universities	Hebrew University	Technion-IIT	Tel-Aviv University	Bar-Ilan University	Univ. of Haifa	Ben-Gurion Univ.*	Weizmann Inst. of Science
Total Staff	3,494.8	1,538.1	604.9	710.2	121.2	79.4	107.1	333.9
Teaching and Research Staff - Total	1,232.2	564.7	125.9	388.9	37.5	34.1	19.0	62.1
Senior Academic Staff	411.5	228.5	49.4	52.4	11.1	16.8	6.9	46.4
Junior Academic Staff	218.3	109.2	50.9	36.8	14.1	5.4	1.9	-
Medical Doctors	3.1	-	1.0	2.1	-	-	-	-
Teachers	102.3	31.2	-	57.6	-	0.6	-	12.9
Teaching & Res. Assts.	261.2	165.0	22.7	62.3	2.3	8.4	0.5	-
External Teachers	83.0	30.8	1.9	29.4	10.0	1.2	9.7	-
Other Research & Teaching Staff	152.8	-	-	148.3	-	1.7	-	2.8
Technical Staff - Total	866.9	260.5	276.7	89.4	5.1	0.7	9.5	225.0
Administrative Staff - Total	1,395.7	712.9	202.3	231.9	78.6	44.6	78.6	46.8

* Does not include the Research and Development Authority

Data were supplied by the universities.

Appendix 10

Staff in Non-University Institutions of Higher Education - 1985/86
(Full-Time Positions)

	Total	Academic Staff	Administrative and Technical Staff
Bezalel, Academy of Arts and Design, Jerusalem	147	71	76
Jerusalem Rubin Academy of Music and Dance	84	67	17
Jerusalem College of Technology	91	45	46
Shenkar - College of Textile Technology and Fashion	90	41	49

Data were supplied by the institutions.